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Pablum Meat Patties

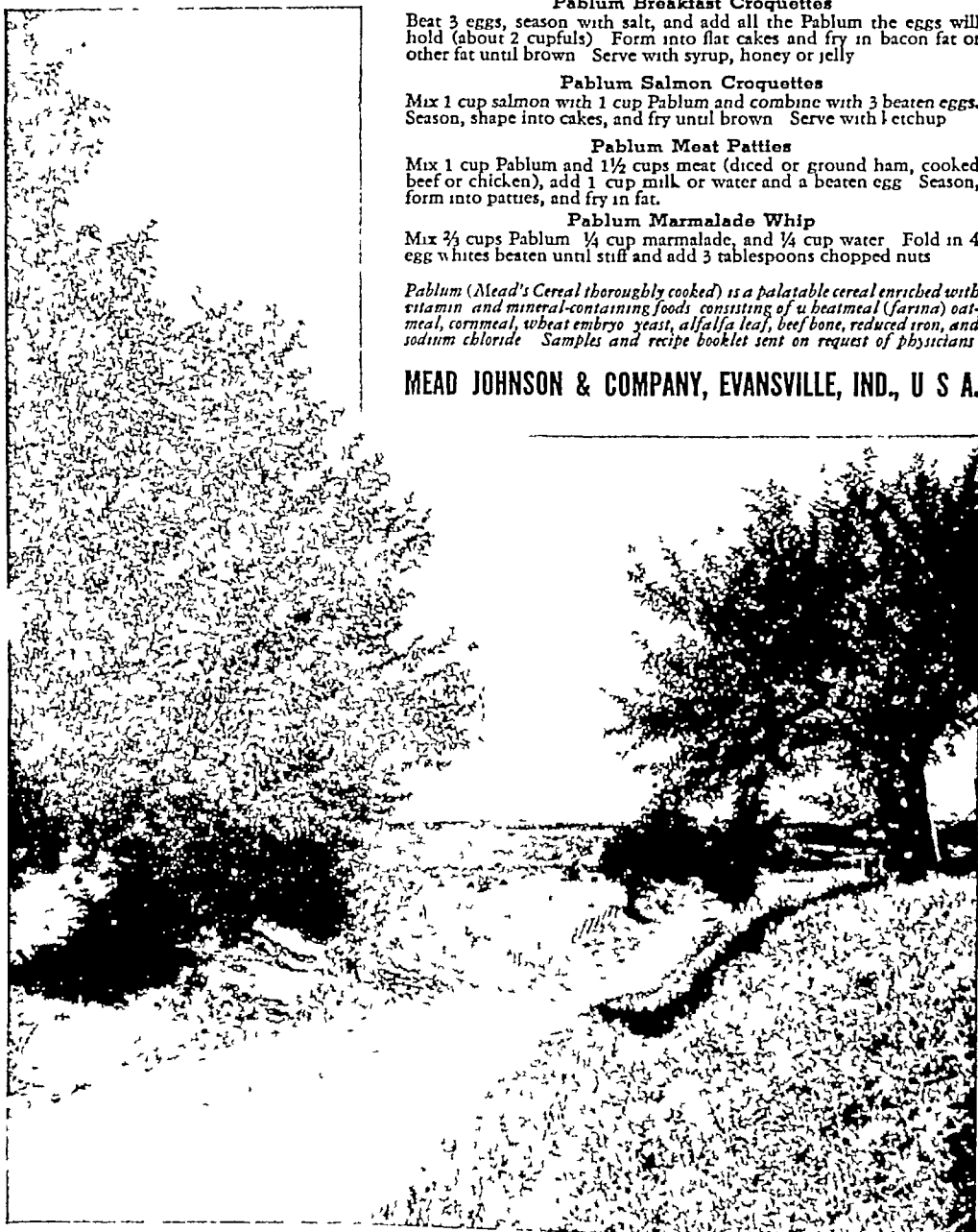
Mix 1 cup Pablum and $1\frac{1}{2}$ cups meat (diced or ground ham, cooked beef or chicken), add 1 cup milk or water and a beaten egg. Season, form into patties, and fry in fat.

Pablum Marmalade Whip

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JOURNAL *of* MEDICINE

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SUPRARENAL BACKACHE

GEORGE D. HOFFELD, M D, *Troy*

There is a reasonable certainty that a certain amount of backache is due to involvement of the suprarenal gland in a functional sense, similar to the idea that in pituitary eccentrics there are pituitary headaches, sometimes localized to the temples on one or both sides, sometimes supranasal, occasionally occipital.

Those suffering from definite Addison's disease, have in a large number of instances, backache, located high in the renal region. Due to muscular weakness involving the muscles of the back, backache is apt to be a sequential symptom of the disease.

A large number of patients with backache as a symptom alone, or concomitant with a varied symptomatology, have a negative urine grossly and microscopically.

Still the backache is definitely pointed out as being over the renal region or somewhat higher in the region of the suprarenal gland. The symptom may be concomitant with definite endocrine disease such as pituitary or thyroid disease, or any pluriglandular syndrome, however mild or insidious. Or the symptom may be part of the large list of complaints in those labeled as neurasthenics or as having "nervous breakdowns." A complaint common to almost all of those afflicted by this particular type of backache to which I refer is general weakness or fatigue not to the degree found in Addison's disease but these patients are very often too tired to do this and too tired to do that. They must cut down on their social activities or their work, or require a large

number of sleeping hours in order to feel rested.

In my opinion these cases are due to intermittent or chronic swelling of the adrenal gland, most likely of the adrenal cortex, similar to the swellings that cause the pituitary headaches. This would also suggest that the pain is caused by stretching of the adrenal capsule since the pituitary headaches are attributed by many to the encroachment of the pituitary gland on its hard bony encasement.

The pain may be due also to a functional hypertrophy of the adrenal gland rather than as swelling of the gland. This in turn may be due to an excessive drain on the adrenal gland due to disease in other of the glands of the endocrine system or in other organs of the body such as that due to infections or degenerative disease, such as cirrhosis of the liver or kidney or lung disease.

Proof of the opinion or the hypothesis as stated is that some of these patients have a low blood sodium chloride, which, as this is the extreme case of adrenal disease, known as hypoadrenalism or Addison's is also very low. In one case under my observation, the backache could be brought on by feeding of foods high in potassium content.

Potassium is known to be somewhat under the control of the adrenal medulla and may also exist at somewhat inverse proportions to sodium in the blood, having an antagonistic effect against sodium. Others of these cases are benefited by administering Vitamin C either in its natural state in foods or as the marketed cevi-

temic acid This substance is chemically known to exist in the adrenal cortex

In some instances the symptom is part and parcel of the rheumatoid pains seen in the subthyroid But unless the pain in these cases is due to chemical changes in the muscle such as accumulation of metabolic wastes, it is apt to be due to the action of the thyroid on the adrenal gland

Dr Hertoghe of Antwerp once expressed the belief that the thyroid governs and controls all the internal secretions Brissaud once stated that the thyroid gland was the most delicate and the most vulnerable of all the organs, that it reacted to deprivation and excesses of all description, and all sorts of infections, however mild This would explain why backache is a common secondary symptom

Irvine, McQuarrie, Johnson, and Ziegler⁵ report a case in which by study of the plasma electrolytes and autopsy a diagnosis of suprarenal hyperfunction was made This case had the symptom of backache Chemical examination of the blood revealed a reduction of the potassium and the chlorides It is interesting to note that in this case with previously high systolic and diastolic pressures there was a reduction in both the systolic and the diastolic during the administration of potassium

This and other cases lead me to the con-

clusion that suprarenal backache is a distinct entity with disordered suprarenal function caused by any number of different chemical or hormonal causes and any one or combination of the following factors should be considered in discerning its cause

- 1 Blood potassium
- 2 Blood sodium
- 3 Thyroid dysfunction through metabolism, blood iodine, creatine tolerance tests.
- 4 Potassium adrenalin effect
- 5 Pluriglandular syndromes
- 6 Clinical effect of sodium administration in the form of acetate chloride or bicarbonate
- 7 Clinical effect of potassium administration
- 8 Clinical effect of chloride administration In this chemical study I have seen cases with abnormal high blood chlorides which were asymptomatic except for slight backache, suddenly develop within a short time, in the absence of treatment, a low blood chloride This can well be explained on the basis that hyperfunction due to increased strain on a gland is often followed by hypofunction

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CONTRACEPTION IN PRIVATE PRACTICE

In the twelve years that ended in 1936, Lovett Dewees, Ardmore, Pa., and Gilbert W Beebe, New York (*Journal A M A*, April 9, 1938), gave contraceptive advice to 884 white patients One-fourth of these were of the premarital group About ninety-four per cent of all the patients advised have been given the occlusive vaginal diaphragm with jelly Therefore, the discussion is essentially a report of the use of that method The 884 patients have been predominantly from upper middle class homes of Protestant background and college trained or the equivalent.

Analysis of the experience of the 662 patients who have been followed up indicates that 1 The acceptance rate of the diaphragm and jelly method was 83 per cent—high enough to justify its routine prescription in private practice and low enough

to illustrate the need for other prescriptions to a significant minority 2 The chance of unplanned pregnancy, while relying wholly or partly on diaphragm and jelly, may be stated as six pregnancies per hundred woman-years of exposure for this group This rate represents a reduction of from ninety-three to ninety-six per cent in the risk of pregnancy incurred by women habitually practicing no contraception 3 Half of the eighty-six unplanned pregnancies followed errors or omissions that might account for conception 4 The successful use of diaphragm and jelly did not retard conception after the method had been set aside for planned conception The time required for conception was reported for 136 of the 167 pregnancies known to have been planned Half were conceived within one month and three-fourths within three months

FOX-FORDYCE DISEASE IN A MALE

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A case of Fox-Fordyce disease is presented because of the rarity of this condition, particularly in males. While about seventy cases have been reported in the literature, only three cases have occurred in men. These were reported respectively by Fox and Fordyce in 1902,¹ Traub in 1926,² and Turk in 1927.³ The following presentation will, to my knowledge, constitute the fourth authentic case of Fox-Fordyce disease in a male.

Case Report

S B, a white nineteen year old male student, born in the United States of Jewish extraction, complained of marked itching, soreness, oozing and cracking of the skin in both axillae, the area about the nipples, and over the pubes. The condition was of 2½ years duration the first and most disturbing symptom was itching which was more or less periodic. (Fig 1-3)

The three involved areas were studded with hemispherical, large, discrete red papules some of which were pierced by broken-off hairs. These were most numerous in the axilla where the hair was sparse and the perspiration most profuse, and least numerous in the pubic region. The skin of the axilla was diffusely red but not infiltrated. There were a few scattered papules between the nipple and the axilla. All the areas of papular involvement showed evidences of scratching. Dr G F Machacek made the following report on a biopsy taken from the axilla:

There is moderate hyperkeratosis, acanthosis and edema of the epidermis. The follicular funnels in the region where the ducts of the apocrine gland emptied, showed extreme edema and an infiltration of leukocytes. The glandular layer in general was thin but well-defined. The papillary and superficial reticular corium was markedly infiltrated by leukocytes many were large mononuclear cells and numerous eosinophilic polymorphonuclears. This infiltration was particularly well marked about the hair follicles and the apocrine gland ducts. It extended along these structures into the depths of the corium and was seen about the acini of the apocrine glands. It was also seen about the deep vessels and nerve bundles. Some of the apocrine gland acini were lined by large pyramidal cells. A few acini were seen which were lined by fat

cells. The eosinophilic quality varied considerably. The myo-epithelial cells were very distinct. There was extrusion and apparently degeneration of some of the epithelial cells in some of the glands. Other glands contained cells which were packed with eosinophilic granules. There was only slight evidence of an inflammatory reaction within the glandular structures. Within some of the follicular funnels were bodies of *Demodex folliculorum*.

Both the clinical and the histological picture conformed well with the findings so much more frequent in young females.

Description of Disease

Fox-Fordyce disease is essentially a disease of young nervous women, the recorded ages being between fourteen and thirty years. The extremely rare cases occurring in men have been mentioned. The work of Schiefferdecker⁴ and Pick⁵ shows definitely that the basic pathology is located in the apocrine or modified sweat glands, which are most numerous in the axilla pubic region and vulva, and about the breast. They are situated in the deep portions of the corium, adjacent to the subcutaneous tissue. When enlarged, as in Fox-Fordyce disease, the glands tend to be arranged in more or less parallel rows. The extreme pruritus is the result of the pressure effect on the fine terminal nerves of the distended gland. There is good evidence that these apocrine glands are odoriferous glands and are intimately connected with the sexual cycle. This was demonstrated by Loeschke⁶ in his observations upon menstruating and pregnant women and was further illustrated by Pick's case⁵ where there was an exacerbation of itching in the affected parts during menstruation.

The relationship of Fox-Fordyce disease with endocrine disbalance is suggested by several case reports. Burgess⁷ reports the development of Fox Fordyce disease following the removal of an ovarian cyst. Dowling⁸ reports a case developing after the cessation of menstru-



Fig 1

ation Netherton⁹ reports a case with an associated hyperthyroidism Pick reports a case showing marked improvement following gland therapy after all other known treatments failed Chorozah¹⁴ discusses the influence of the vegetative nervous system in Fox-Fordyce disease

Diagnosis

The diagnosis of Fox-Fordyce disease depends principally on the differentiation



Fig 2

from chronic lichenified lesions such as neurodermatitis and lichen chronicus simplex¹⁰ Itching is the earliest and most intense symptom However, a case has been reported without itching¹¹ The lesions are papular and reddish in color They develop slowly with little tendency to regression The sites of predilection have already been considered

Pathology and Pathogenesis

According to the studies of Schiefferdecker and the studies of Pick, the princi-

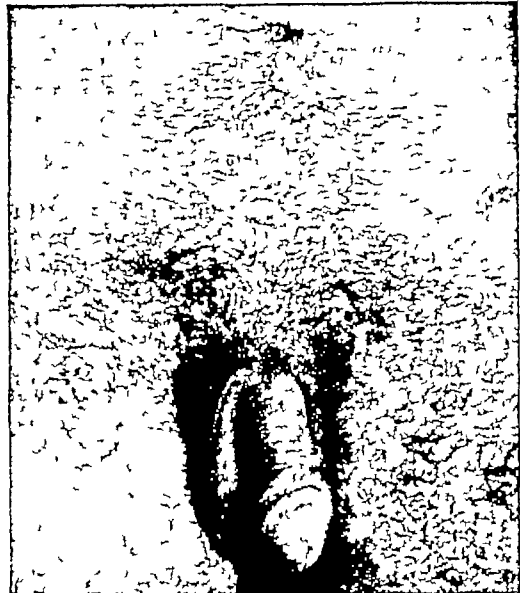


Fig 3

pal involvement is in the large sweat glands in the lower portion of the corium This consists of a lymphocytic infiltration in the midst of the gland Often the infiltration tends to take the form of focal circumscribed involvement, and also in the form of bands and strips It often penetrates into the lumen of the gland detaching epithelial cells from their connection to the basement membrane The lumen of the gland is filled with cell debris There is acanthosis, parakeratosis, and the formation of a horny obstacle, blocking the ostia of the glands

From the point of view of pathogenesis, a qualitative change in the secretion of the abnormal apocrine gland might account for the low grade inflammatory reaction and the plugging of the orifice

the gland. During periods of increased secretion, as during menstruation, the secreted fluid is damned back and thus may pass through the walls of the excretory duct into the adjacent tissue.

Treatment

Various treatments have been recorded in the literature. These include x-ray, radium therapy,¹² surgery,¹³ and endocrine therapy.⁵ While x-ray treatment is

palliative, best results are recorded by the use of ovarian extract, frequently repeated

Summary

1 The fourth recorded case of Fox-Fordyce disease in a male is presented

2 A description of the disease, its pathology and probable pathogenesis were considered, as well as the available therapy 30 E. 40 Sr

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AMERICAN LEPROSY FOUNDATION

At a meeting of the Medical Advisory Board of the Leonard Wood Memorial (American Leprosy Foundation) on May 23 Dr Esmond R. Long Professor of Pathology of the University of Pennsylvania and Dr Malcolm H. Soule, Professor of Bacteriology of the University of Michigan, were elected members for one year. Both of these scientists have been doing research work in the field of leprosy for several years. The other members of the Board are Dr Hans Zinsser, Chairman, Dr S. Bayne Jones, Dr Howard T. Karsner, Dr Thomas Parran, Dr H. W. Wade, and Dr Ray Lyman Wilbur.

At a dinner that evening in honor of Dr H. W. Wade, Medical Director of the Leonard Wood Memorial held at the Union League Club (New York City) the following guests were present: Dr Rudolph J. Anderson, Colonel Mahlon Ashford, Mr Perry Burgess, Dr Charles M. Carpenter, Mr Eversley Childs, Honorable Martin Conboy, Mr C. I. Crowther, Dr James A. Doull, Mr H. L. Elias, Dr Howard Fox, Dr Edward S. Godfrey, Dr Howard T. Karsner, Mr Francis G. Landon, Dr Esmond R. Long, Dr G. W. McCoy, Dr McKinley, Dr Thomas T. Mackie, Dr Wade, Dr Oliver, Dr E. L. Ople, Mr W. Page, Dr William H. Park, A. Pierce, Dr George H. Ramsey, Dr Leonard Ross, Dr George M. Saun-

ders, Dr Wilbur A. Sawyer, Dr Malcolm H. Soule, Dr H. W. Wade, Mr M. J. Ossorio, Mr D. Everett Ward, General Frank R. McCoy.

Dr Wade, who makes his permanent headquarters at the leper colony in Culion, Philippine Islands, arrived in this country on April 28 from Cairo, Egypt, where he attended the Fourth International Leprosy Conference and made a lecture tour of the leading medical schools in the East. He departed for Rio de Janeiro on May 31 for a month's visit as a guest of the Instituto Oswaldo Cruz.

The purpose of this visit, he said, was to see the work being done in leprosy at the various leprosaria in that country and to hold conferences with the leading scientists interested in this disease. Brazil is one of the most, if not the most important center of leprosy work in the world.

Shortly after his return to this country Dr Wade will once again return to the Philippines. Dr Wade stated that he was much encouraged by the interest and co-operation of the governments and scientists in all the countries that he has visited. He was exceedingly happy to find that the scientists in the United States were so interested in the work of the Memorial, especially when it is considered that leprosy is not one of the great public health problems in this country.

MALARIA IN DRUG ADDICTS

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In 1929, Biggam^{1,4} reported a veritable epidemic of malaria among heroin addicts in Cairo and suggested the practice of aspirating blood into the hypodermic syringe during the injection as the probable mode of transmission. Between 1932-1934 a series of papers,⁵⁻¹² emanating from several metropolitan centers, emphasized that cerebral malaria in addicts constituted a baffling diagnostic problem when this possibility was not routinely considered in comatose patients as well as a difficult therapeutic problem whose unsatisfactory solution was reflected in a very high mortality rate. Several writers have stressed the great possibility and potential danger of the introduction of the disease into malaria-free anopheline habitats by the drug addicts. Although the prevalence of a febrile and fatal disease among addicts, who "split the dose," has led to greater caution in regard to promiscuous use of needles, the occurrence of twenty-seven cases of malaria among this group at Metropolitan Hospital in recent years indicates that the problem and danger still exists, although medical literature has become quite silent on this subject.

At present, when ambulance surgeons are instructed to inspect carefully the antecubital veins of every comatose patient for evidence of venipuncture, this group presents fewer diagnostic problems. On the other hand, the equally frequent noncerebral form may prove very puzzling unless every febrile narcotic addict is suspected of harboring the plasmodium. Since the cerebral form of malaria in drug addicts has been thoroughly described by Helpert and others,⁸⁻¹⁴ only one case of this type is included in this report.

CASE 1 J B, a white male, age forty-two, was admitted November 20, 1937. He developed a splitting frontal headache followed by chills, fever and sweat four days ago. The chills occurred each evening, lasted five minutes, and were followed by

profuse perspiration. Although he has been a drug addict for twenty years, he became a "main-line shooter" (i.e., intravenous injection) four months ago. Last week a friend borrowed his needle. The remainder of the history is irrelevant.

Physical examination revealed markedly enlarged and acutely inflamed tonsils and a reddened pharynx. The anterior cervical lymph nodes were slightly tender. Granular breathing and a few crackling rales were heard in the left lung. Numerous puncture scars were seen in the antecubital fossa and on the thighs.

The temperature varied between 100-102.4° F. The urine was negative except for albumin and granular casts. On admission the blood count was entirely normal but one week later the erythrocytes numbered 3,900,000 and the hemoglobin was sixty-eight per cent. The malarial parasite (estivoautumnal) was evident in the blood smears.

Comment. A typical case of malaria was admitted with a diagnosis of acute follicular tonsillitis and an upper respiratory tract infection. The discovery of puncture scars and the admission of drug addiction led to an immediate examination of the blood and the discovery of the plasmodium.

CASE 2 R O, a twenty-nine year old Puerto Rican, was admitted November 2, 1937. Three weeks before admission patient developed fever, severe chills, and sweats. His physician treated him for influenza although nightly chills recurred. The night sweats, a productive cough, the loss of fifteen pounds in weight, and the fact that three immediate relatives had recently died of pulmonary tuberculosis led to hospitalization as "influenza and tuberculosis." He has been a drug addict for eight months employing the intravenous route. Eight years ago he received intensive treatment for syphilis.

Outside of poor nutrition, irregular but reactive pupils, a friction rub and crackling rales in the right axillary line, a systolic pulmonic murmur, a palpable spleen, and numerous thrombosed veins in both antecubital fossa, the admission physical examination was negative.

On the fifth day of hospitalization the temperature rose to 102.6° F and pain associated with a friction rub developed in the

splenic region. Outside of a mild anemia and increased sedimentation rate and malarial parasites (estivoautumnal form) in the peripheral blood and sternal bone marrow, his laboratory studies were negative.

Comment The milder forms of noncerebral malaria in drug addicts often begin with symptoms resembling influenza. Leukopenia may be present and the temperature curve atypical. Often the patient delays seeking medical advice owing to fear of withdrawal of the drug supply or an inclination to attribute the symptoms to an inferior quality of the drug. In this case an erroneous diagnosis was responsible for delay.

CASE 3 N P, a twenty seven year old white male was admitted October 13, 1937. Four weeks previously, swelling of the ankles and puffiness about the eyes appeared. Bloody urine, nocturia, and dysuria were also present. Chills and fever were noted for a time but these vanished. The edema receded somewhat but the urinary symptoms persisted. The night before admission there was a spontaneous nosebleed and shooting pains in the abdomen. He had been a drug addict for several years.

He was pale and undernourished showing marked puffiness around the eyes. There was a soft systolic murmur over the entire precordium and the second aortic sound was accentuated. The blood pressure 155/90. The spleen was enlarged three fingers below the costal margin and soft in consistency. There was fullness in the right kidney region and tenderness on deep pressure. A posterior urethral stricture was found during cystoscopy. A very marked soft pitting edema of both legs extended as far as the knees. Venipuncture marks were discovered on the arms.

The urine showed albumin, hyaline and granular casts, many red blood cells, and epithelia. In spite of two transfusions the blood count was only 3,390,000 red cells, and 5,400 leukocytes two weeks after admission. The hemoglobin remained near fifty-eight per cent. The initial blood chemistry revealed a mild azotemia together with a hypoproteinemia which soon returned to normal. The blood cultures were negative but malarial parasites (estivoautumnal form) were evident in blood smears. Other laboratory data was irrelevant.

Comment The occurrence of nephritis, either hydremic or azotemic, is common in malaria and usually responds rapidly to anti-malarial treatment. It is said to occur more commonly in the quartan form but this patient had an estivoautumnal infection. The irregular temperature and large spleen, anemia, and renal findings suggested a sub-

acute bacterial endocarditis. The nephritis of malaria is often unaccompanied by hypertension.

CASE 4 A. H. a twenty two year old negress, was admitted October 6, 1937. The patient entered with a chief complaint of fatigue headache, and abdominal pain. Recently she had been hospitalized elsewhere for the same symptoms and discharged with slight and temporary improvement. She has been a heroin addict for six months, employing the intravenous route. Two abortions have been performed during the last year.

The physical examination including pelvic, was negative. The conjunctivae were pale, the tonsils enlarged, and the spleen palpable two fingers below the costal margin. A systolic murmur was heard at the apex. There was an infected thrombotic vein in the antecubital fossa. Her initial blood chemistry revealed a nonprotein nitrogen of 70 Mg per cent which fell to thirty-one in the course of a month.

Her initial blood count was erythrocytes, 1,360,000 leukocytes 6000 hemoglobin twenty-eight per cent, polymorphonuclears fifty-six lymphocytes thirty-eight, mononuclears five. Blood smears were negative for malaria. A sternal bone marrow biopsy revealed the plasmodium (quartan type) and subsequently the organism was found in blood smears. The remainder of her laboratory studies were essentially negative. Her admission temperature (99°) gradually rose to 103.4° F., remained elevated for eight days and then subsided.

Comment This patient represented our first case of malaria in a female addict, this does not seem to have been previously reported. The presence of the plasmodium in the sternal bone marrow and its subsequent appearance in the blood stream is interesting in view of numerous reports in medical literature concerning the accidental transmission of malaria by blood transfusion from donors whose blood smears failed to reveal the plasmodium. On admission she was regarded as a probable instance of chronic inflammatory pelvic disease but the discovery of a thrombotic vein and subsequent admission of drug addiction led to sternal biopsy and the correct diagnosis. We have employed this measure with some success in cases whose blood remained negative after strychnine or epinephrine although epinephrine is usually successful in the presence of splenomegaly. One month after admission the blood count revealed 2,400,000 erythrocytes, 5,200 leukocytes, hemoglobin thirty-two, polymorphonuclears thirty-eight, lymphocytes fifty-six, monocytes four. In

the interim she had been transfused and given liver extract and iron. Malarial anemias are often refractory to treatment.

CASE 5 C W, a white twenty-nine year old male, was admitted August 8, 1934. The patient exhibited decided mental dullness, a festinating gait, and incoherent mumbling. Beyond a history of drug addiction for ten years little information could be secured.

The physical examination revealed irregular pupils, blurring of optic discs, weakness of the extrinsic muscles of the left eye with lateral nystagmus, marked tremor of tongue, hyperactive reflexes with ankle clonus on left side, and a bilateral Babinski. The spleen was just palpable. Spinal puncture showed a clear fluid, 20 mm Hg pressure, normal cell count, negative Wassermann reaction and no modification of the colloidal gold. The initial impression was that of an encephalitis of undetermined origin. However, the blood smear showed innumerable parasites.

Quinine dihydrochloride was administered intravenously and a convulsion, followed by coma, occurred shortly afterwards. Muscle spasm, rigidity, and marked nystagmus dominated the picture, the temperature rose to 103.4°F. Lumbar puncture gave no additional information. On the following day the patient had repeated convulsive seizures and died. The remainder of the findings are irrelevant.

Comment. Although the other reported cases were seen within a two months' period, this case belongs to the 1934 epidemic of cerebral malaria among drug addicts in New York City. The mortality rate in this form is very high, approximately twenty times the ordinary death rate in malaria. The estivoautumnal parasites seems almost exclusively responsible for the cerebral form among drug addicts and treatment is quite

unsatisfactory. Cases with hyperglycemia and soft eyeballs have been mistaken for diabetic coma, others with hypoglycemia and coma have been regarded as insulin shock. Confusion with numerous neurological syndromes has often occurred.

Summary

Malaria should be considered a possible diagnosis in the febrile syndromes of drug addicts and a search made for evidence of drug addiction in all obscure fevers. The occurrence of a large number of cases of malaria at Metropolitan Hospital has been paralleled by experiences in other similar institutions and suggests that the problem has greater importance than recent medical literature implies. Drug addiction plays a major role in urban malaria and constitutes a great potential danger in regard to infection of malaria-free anopheline habitats.

FLOWER-FIFTH AVE. HOSP

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SUMMER ACTIVITIES IN VENEREAL DISEASE PROGRAMS

Physicians are cordially invited to attend a series of intimate round-table discussions and conferences relating to the diagnosis and treatment of syphilis and other genitoinfectious diseases.

All meetings will be held in the Conference Room on the second floor of the Department of Health building, 125 Worth Street, New York City. The time of the meetings will be Wednesday mornings, July 13, July 27, August 10, and August 24, and Wednesday afternoons, July 6, July 20, August 3, August 17, and August 31. The morning sessions will begin at 10:30—the afternoon sessions will begin at 2 P M.

The special topic will be the place that the physician occupies in premarital examinations, his responsibilities and opportunities. The discussion leaders will be invited guests and members of the Health Department staff.

Illustrative clinical material will be shown, when available. Laboratory procedures will be demonstrated, lantern slides and motion pictures will be shown.

Physicians are urged to attend, to join the discussions, to present their problems and to cite their experiences. Consultants and epidemiologists of the Bureau of Social Hygiene will be present.

THE SADDLE NOSE

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New York City

From the Ear, Nose and Throat Departments of The New York Post Graduate Medical School of Columbia University and The Manhattan Eye and Ear Hospital

The approach in the management of the saddle nose from the view of generalities is often confusing. Another general schema of classification would not only be superfluous, but totally unnecessary. The scope of this paper is to ascertain the pathology involved from the normal nasal configuration of its anatomical structure. With this anatomic pathological basis it is quite surprising how often these deformities are readjusted without resorting to any cartilaginous or ivory graft implantation. In proper and selected cases the utilization of either of the latter grafts serve the purpose admirably. We do not intend to enter at this time into the controversial issues involved in the merits and demerits of these useful grafts. Let us now focus our attention on the following cases. Let us observe what

part or parts of the normal nasal structures are distorted, let us then reconstruct the existing pathology to an esthetic form with the simple utilization of the excess segments at our disposal.

Fig 1-A and B show a depression in the cartilaginous portion of the nose. Both alar cartilages are hypertrophied. This type of case is the usual sequela of a faulty submucous resection.

Let us now attempt to remould the deformity into its normal pattern. The upper lateral cartilages were severed from the septum and sutured together in the midline directly above the septum. This was insufficient to round out the depression. Then, long, narrow quadrilateral segments were excised from the hypertrophied alar cartilages. The mucous membrane and adherent perichondrium

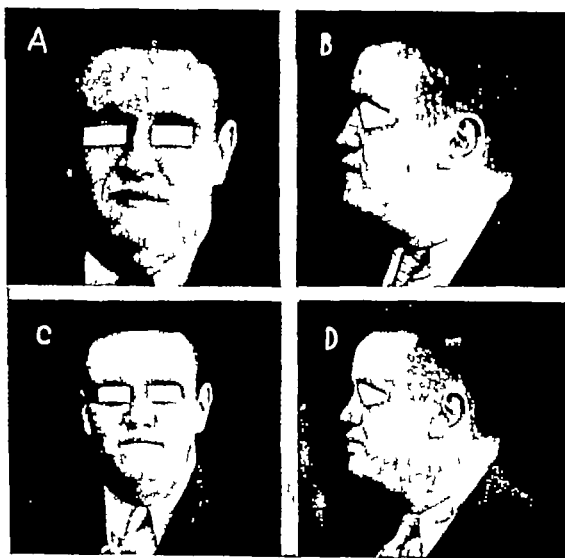


Fig 1

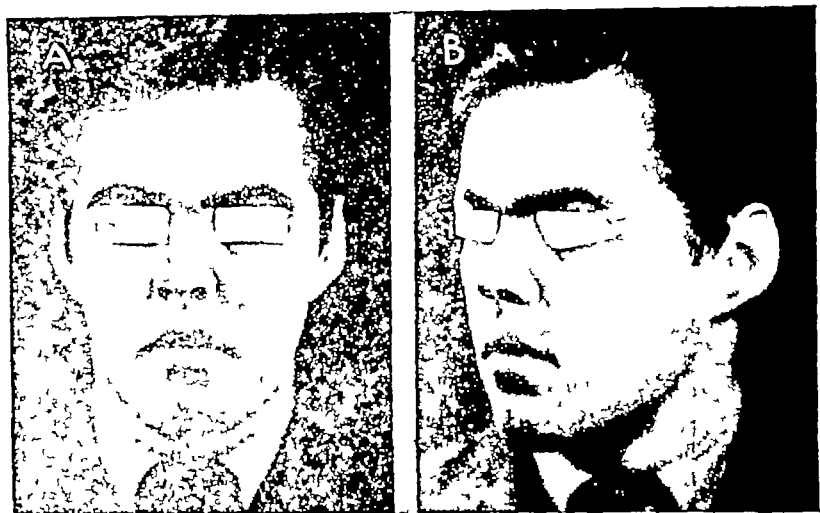


Fig 2

were removed from these cartilaginous segments. They were then superimposed on each other. They were held together tightly with silk sutures free on both ends.

These superimposed alar segments were then placed directly over the superposition of the upper lateral cartilages in the midline. The uppermost free end of the suture was brought through the overlying



Fig 3

Fig 4

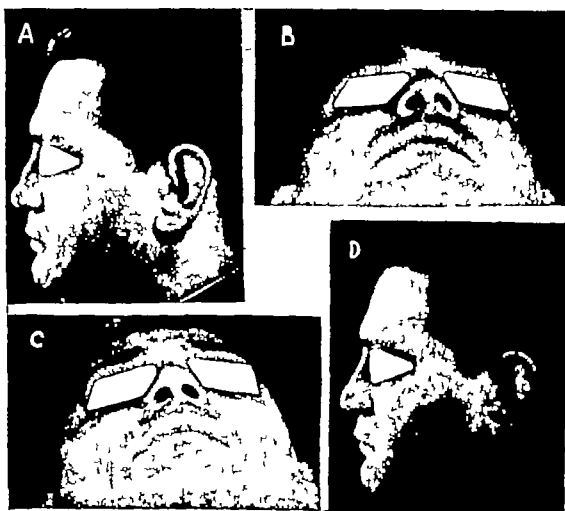


skin at the highest point of the depression, while the lowermost end of the suture was passed through the lowest point of the depression. These two free ends now projecting from the skin were tied together with the interposition of a supporting base, such as rolled cotton, gauze, etc. This was reinforced with an adhesive dressing applied directly over it. The dressing and sutures were not removed until the seventh day. Fig 1-C and D are the end results after six weeks.

Fig 2-A is the result of an infection of the septum, causing a depression in the cartilaginous portion of the nose with the resultant cicatrization causing the nose to deviate to the right.

Here the upper lateral cartilages were atrophied because of the infection. Hence they could not be utilized. A long narrow strip of auricular cartilage was removed and stripped from its perichondrium. This was sectioned off into several equal segments which were superimposed on

Fig 5



each other, held together, and inserted in the same manner as in the preceding case. When the upper lateral cartilage was severed from its septal attachment, the cicatricial tissue present on the right side was excised, thereby removing the cause of the deviation to the right. Fig 2-B is the end result after six weeks.

Triangular pieces of the upper lateral cartilages were removed in order to narrow the broad cartilaginous portion of the nose. Narrow elongated quadrilateral segments of the alar cartilages were removed, which narrowed the hypertrophied tip. Equal segments from the septal and alar cartilages



Fig 6

Fig 3-A and B are the result of trauma. The anatomical pathology is quite apparent. The nasal bony framework is flattened out. The cartilaginous portion is depressed and broadened. The alar cartilages are markedly hypertrophied. This type of deformity is invariably associated with a fractured dislocated septum.

A submucous resection for the dislocation was done. The bony framework was

superimposed on each other were sufficient to round out the existing saddle deformity.

Fig 3-C and D are the end results after four months. During the interim, the acne was treated and controlled by Dr Cipollaro as is clearly seen in the respective figures.

Fig 4-A is the end result of repeated trauma following wide submucous resec-

tion The bony framework is flattened out and the cartilaginous position is depressed and broadened. The alar cartilages are hypertrophied. The tip is protruding downward.

The bony framework was narrowed and raised. The broad cartilaginous portion was reduced by removing triangular segments from the upper lateral cartilages. The hypertrophied alar cartilages were narrowed in the usual manner and the tip of the nose raised by removing a triangular segment from the anterior portion of the septum. There was a sufficient supply of cartilage strips present to correct the existing saddle deformity in the usual manner. Fig 4-B is the end result after three months.

Fig 5-A shows a saddle deformity in the cartilaginous portion of the nose with a fracture dislocation of the septum. Fig 5-B shows the anterior part of the septum markedly displaced to the left. Etiology in this case is trauma.

Here the septal dislocation was removed and there was a sufficiently large septal segment to fill in the saddle de-

formity. Fig 5 C and D are the end results after two months.

Fig 6-A and B are the end results of trauma. There is an hypertrophy of the bony framework of the nose simulating a hump. The cartilaginous portion is depressed and broadened. The alar cartilages are slightly hypertrophied. The septum is markedly deviated to the left causing nasal obstruction.

The septal obstruction was removed. The slight hump was also removed and the bony framework of the nose then narrowed and raised. The cartilaginous portion and alar cartilages were narrowed in the usual manner. There was enough septal cartilage present to fill in the saddle deformity in the usual manner. Fig 6-C and D are the end results after three months.

The proper utilization of the excess morsels of cartilage removed, in such cases as described will in the vast majority of saddle deformities be sufficient for a proper esthetic result.

1021 PARK AVE

CALIFORNIA'S "MINIMUM PROGRAM" FOR COUNTY SOCIETIES

The California Medical Association has decided that its county societies "must be maintained as going, active units," and "a hit-and-miss policy and indefinite, disassociated activities, are not productive for the greatest good. To achieve results, to attain objectives, and to enlist and hold the interest of members, every county society should place into operation a minimum program of work."

To that end this minimum program is outlined for consideration.

Section 1 Scientific

(a) Ten meetings to be held each year. Local speakers are to appear before six meetings with definite planned papers or case presentations. Four guest speakers.

(b) A program of physical examination in which all members shall agree to have a complete physical examination yearly.

(c) The establishment of a "Health Hour" in each member's office once or twice a week before or after regular office hours. The Society to sponsor publicity to acquaint the public with the fact that during these hours persons unable to pay regular fees will be given tests and immunization treatment for a reduced fee. This fee to be determined by the county society.

(d) Each society to form one or more teams, composed of two or three members who will prepare a program and present it on request before an adjacent county society.

Section 2 Public Education and Information

Each society shall sponsor or cause to be sponsored at least five public lectures during the year for each high school. Parent-Teacher organizations, luncheon clubs, women's clubs, public at large.

Section 3 Social Functions

Each society shall hold at least three dinner meetings to be addressed by educators, business men, attorney or civic official, one annual banquet, one annual picnic, joint dinner with dentists, attorneys, pharmacists, and hospital officials.

Section 4 Publicity

Each meeting and activity shall be reported to local newspapers in such form that at least one important fact of interest and value to the public is imparted.

If county societies will adopt this minimum program it is predicted that members will reveal interest and attend. This program is not a self-starter—someone has to assume the initiative. Will you be that someone in your county?

ACUTE SINUS INFECTIONS

FRANCIS W WHITE, M D , *New York City*

Sinusitis, you will all agree, is no respecter of persons, the rich and poor alike being afflicted, and its geographical distribution being practically unlimited. Also, that in all seasons it prevails, but that during the summer months the number of cases is markedly less. In regard to season, it may be said that the incidence of sinusitis is increased directly after the summer vacations. Then, there is another increase in the number of cases following the holiday season, mounting to its broad peak in January, February, and March.

The number of cases depends upon the presence or absence of other respiratory affections, such as the common head or chest cold, and mild or severe epidemics of influenza. Pneumonia, and the infectious diseases of childhood, particularly scarlet fever, are active predisposing causes of sinusitis. Diet is important to those who lack resistance. Vitamin intake should be critically investigated. Allergy must be considered. Unsupervised, ill-advised douching of the nose, pool or other forms of bathing, and diving by novices, are potent factors in the production of sinusitis. Intranasal operations, followed by marked blocking of the nasal cavities may set up an acute sinusitis. Manifestly, one infected sinus frequently sets up an acute process in one or more neighboring sinuses. This occurs especially in the anterior series, namely, anterior ethmoids, antrum, and frontal.

It is generally thought that usually the sinuses are sterile. This cannot be said of the postnasal space. Positive cultures may be obtained at any time from the latter space, but the organisms are dormant until an acute catarrhal process acts as an excitant. The role of the filtrable viruses in the etiology of upper respiratory disease has not been fully worked out as yet. It may change our conception of the common cold. The organisms usually associated with acute sinusitis are the cocci and bacilli, the former predominating in incidence. A person with me-

chanical obstruction in the nose—deviated septum, spurs, or both—is, naturally, more prone to sinus involvement than a person without such handicaps. Strange as it may seem, the sinuses corresponding to the wider, open side of the nose are most frequently affected. The tonsils and adenoid in a child may be a predisposing cause, and a deviated septum, frequently unrecognized, may also be present. Fortunately, both conditions may be operated upon under the same anesthesia. It is significant that children with so-called "recurring tonsils" have marked deviations of their nasal septa. It is inconceivable to visualize a severe attack of coryza without there being some involvement of the neighboring sinuses by continuity. Add to this, the effects of the highly technical method used for blowing the nose! Usually, there is a sudden atmospheric blast outward in one nasal chamber, while in the other—the closed one—the nonescape of air must be compensated for by compression, or else partial escape into the neighboring sinuses. This act carries infected material if not directly into the sinuses, then dangerously near their thresholds.

It is very difficult to determine when an acute process in a sinus begins, but usually, it is within three days, and most frequently, in less time. The symptoms are so merged with a coryza that it is impossible to differentiate in the early stages. Here is a case of coryza, for instance, running nose, irritation of the pharynx and possibly the larynx. A rise in temperature to 100° F or over, with acceleration of the pulse, is discovered. When these are followed by a change in the character of the nasal discharge, lassitude or actual prostration, undue perspiring upon the least exertion, headache, inability for mental concentration or absolute lack of desire for mental activity, lameness of the eye muscles and a consequent restriction of eyeball movements, at times, dizziness when the eyeballs are moved, and tenderness over one or more

Read before the Academy of Medicine of Northern New Jersey, February 17, 1938

of the sinus areas, it is logical to make a diagnosis of acute sinusitis.

Symptoms naturally vary. When the natural ostium is closed, due to a swelling of the neighboring mucosa, the reactions are quite different than when drainage is unhampered. In the first instance, there is partial or complete retention of the discharge. Under these circumstances danger signs appear, namely, definite symptoms of absorption, and a temperature rise to 104-105° F. The sphenoid sinus frequently reacts in this manner. Aids to diagnosis are transillumination and x-ray films. Unfortunately, transillumination requires much practice to make evaluations and is only of use when definite signs and symptoms of sinusitis are present. Its greatest use is in antrum disease. The value of the x-ray depends upon the ability of the roentgenologist to interpret his films. Not infrequently, we forget that he is not looking at a photograph, but at lights and shadows. The flat film is of value but stereogram films are of much greater value.

Headache is one of the cardinal symptoms in frontal sinusitis. It may be entirely absent or may be so severe that the patient is distracted and threatens dire things if not relieved. In an ordinary case the first head discomfort is felt when the head is lowered, as in stooping, the feeling being described "as if something heavy and painful wants to fall out." Disagreeable sensations of "bursting" in the same region may be felt, if the patient coughs or strains. The headache has one characteristic that is helpful in differentiating it from a neuritis, especially a supraorbital neuritis. That is the patient frequently will say the headache begins at a stated time, increases in severity to a maximum then gradually lessens, and disappears several hours later at almost the identical time each day. During the course of the headache tenderness over the frontal may be very great so much so that the outline of the sinus may be fairly well demonstrated by light percussion, but the tenderness lessens with the receding of the headache. Fortunately in this type of headache, the patient obtains some respite during the night. Photophobia, and an injected conjunctiva may be present. At times an edema, due to an osteitis is observed. Edema of varying

degrees may involve the upper lid. The frontal region is the most common site for swelling of this kind to appear among the superficial sinuses. Usually, it disappears with diminution of intrasinus pressure.

If the maxillary sinus is involved, there is pain and tenderness in the region of this sinus. Headache may be present. The upper teeth of the same side may also be tender or become the seat of actual pain. Edema of the corresponding side of the face and lower lid may occur if the natural opening of the sinus is partially or wholly blocked. It may become necessary to make an opening into the antrum to evacuate pus. An annoying cough of undetermined origin may be cured by the simple procedure of washing out the antrum. At times a foul, putrid odor to the nasal discharge may be detected. This odor may be perceptible to the patient only. In either instance, a dental origin for the odor should be sought. A difficult upper tooth extraction may have taken place recently. The services of a dentist well versed in x-ray interpretations should be sought without delay. Swelling and tenderness in this region in infants has, unfortunately, been mistaken for sinusitis. It may be a periorbitis, probably due to an infected tooth sac, necrosis of the neighboring bone, and a discharge both into the nose and into the mouth. In this instance, the x-ray film would show positive evidence of the condition present. The treatment is quite apart from sinusitis.

Ethmoids and Sphenoids

Acute infections of these sinuses give rise to pain and headache. The locations of the headache are variable. They may be located behind the eyes or in the occipital region. In the case of the sphenoid particularly, the headache may be located behind the mastoid process. Tenderness also in this region may be elicited. If an otitis media is present on the same side, the possibility of a mastoiditis may cause anxiety. The loss or derangement of the senses of taste and smell is a frequent occurrence. Usually, these functions return to their former state with amelioration of the sinus attack. X-ray examination of these sinuses is very essential.

A common cause for swelling to appear at the inner angle of an eye is edema of the eyelids, due to an ethmoiditis. The edema may be extensive, causing considerable inconvenience, although the eyeball is movable in all directions. However, if it extends into the orbit the eyeball is pushed outward, resulting in some limitation of motion to the eyeball. This condition is observed frequently in children, and is cause for alarm to the parents and concern to the physician. This type of sinusitis is too frequently the recipient of meddlesome surgery, which only complicates a mild complication. Under local treatment, the condition usually resolves within ten days. Another and still more annoying type of swelling appears at times, especially in children, namely, a subperiosteal abscess. The stage of edema has passed, and pus actually presents between the orbital wall at the site of the ethmoiditis and the periosteum. This is a true abscess, exhibiting redness and tenderness at the area of swelling, and requires incision and drainage. This complication is frequently and erroneously termed "abscess of the orbit." Very often the lids are involved. No doubt, by the time your patient presents the above symptoms, you will have asked a colleague versed in ear, nose, and throat conditions to see the patient. Therefore, it would be a little beyond the limits of this paper to burden you with the differential diagnosis of orbital abscess and cellulitis, or to detail the symptoms of cavernous sinus thrombosis.

Treatment

The ideal treatment would be to isolate and put to bed all cases of acute coryza, but we are not all idealists. Mild cases of acute sinusitis will persist in going about their daily tasks, thus acting as foci for other cases of coryza. Incidentally, they have mild recurrences of the attacks, sensitizing themselves, and gradually passing into the subacute and chronic states of sinusitis. However, when the patient submits to the ignominy of quitting and going to bed, the treatment should be as in any general case, that is, elimination by means of the gastrointestinal tract, and forcing fluid intake. The administration of a mild analgesic as

some one of the coal-tar products, or if preferred, a barbituric compound either alone or combined with mild doses of opium, is indicated. These combinations take the edge off the "nasty" headache, and relieve the "all-beaten-up" feeling due to head congestion and the effects of toxic absorption. For a couple of days no active nasal treatments should be given. "Treat the nose kindly" should be the motto. Manifestly, a patient suffering from a stopped-up nose, mouth-breathing, and the constant necessity of wiping the nose, is entitled to some measure of relief. This may be satisfactorily accomplished by the use of one of the numerous epinephrin, or ephedrine solutions. These solutions are to be used three or four times a day by means of an atomizer—not drops. It is well to bear in mind, however, that a certain number of patients are very susceptible to these drugs. Steam from water, with or without some medicament added to it, is very soothing to the mucous membrane with which it comes in contact. A drop or two of oil of pine needles to the pint of water is sufficient to help soften the atmosphere. The idea is to get softened air into the airways. Strongly medicated steam defeats the purpose for which it is being used.

It is quite possible that patients have treated themselves for a day or two, and it is not until a profuse mucopurulent discharge so annoys them that they seek relief. At this stage, frequent daily shrinkage of the nasal mucous membrane in the nose is indicated, as above noted, followed each time by gentle irrigation with a warm saline solution. The instillation of one of the mild silver salts in solution, once a day, and spraying frequently with oil carrying in solution small amounts of camphor and menthol, is very acceptable to the patient. The application of this oily solution is done by means of an atomizer. The ice cap is applied to the face or head for pain, headache, local swelling, and high fever. Care must be exercised in the use of the ice cap as a very distressing neuralgia may ensue after its prolonged application. Surgery is not frequently necessary, although puncturing of an antrum that is full of pus may be indicated when drainage is otherwise not sufficient. The sphenoid

may also demand such treatment. In general, it is well not to resort to surgery until the acute symptoms ameliorate, but each case must be a law unto itself.

The consideration of a condition termed "myalgia," or pain in a muscle, is appropriate at this time. As sinusitis has replaced, at least in daily lay conversation, the good old "liver troubles" of forty to sixty years ago, or "appendicitis" of twenty years ago, you will now have a first-hand, homemade diagnosis of "sinusitis" given to you by many a patient. The muscles of particular interest in connection with sinusitis are the sternocleidomastoids, and the trapezi, the great muscles of the neck. These muscles are constantly on duty, day and night, always holding the head in certain definite positions. Pain and headache are prominent symptoms of their involvement. If the headache is located in the frontal or occipital regions, with symptoms of a sense of weight upon the head, lassitude, inability to concentrate, distress when bending the head forward and with the presence of a coryza, the symptom

complex simulates sinusitis. Cold drafts are potent factors in causing myalgia. They can easily be causative factors, due to the almost universal use of the automobile, electric fan, and various forms of air-conditioning. Absorption from a focus of infection, and faulty metabolism may also be causes. The diagnosis is easy, as by superficial or deep pressure over the frontal and occipital regions, pain is elicited. If the tissues in these regions are grasped between the fingers and thumb and quickly squeezed, a very definite reaction is obtained. The sternocleidomastoid and trapezi muscles are tested in a similar manner, that is, by pressing and squeezing at their points of origin and insertion. In testing the sternocleidomastoid the most tender point will frequently be found at its middle, or about the junction of its two heads. The treatment consists of removing the cause when possible. Heat locally, massage, and acetylsalicylic acid by mouth, and at times, one of the good old-fashioned liniments may be employed.

471 PARK AVE.

EXIT OLD AGE

Two Czechoslovak doctors, Tvaroh and Rypova, have made up their minds that they won't, they won't, and they won't grow old says a letter from Czechoslovakia to the *Medical Record*. They don't say whether they tried those famous monkey gland rejuvenation systems but if they did, the results must have been not entirely according to their liking because they set out to find something else. And if we are to believe their reports, printed in the *Casopis Lekaru Ceskych* they are on the way to immortality.

According to our esteemed confrères, who, by the way are on the staff of Professor Eiselt's Clinic for the Aged, there is no denial of the fact that the principal changes noticed as one grows older are the following: a progressive muscular and cardiovascular asthenia, anorexia with minor or major gastrointestinal complaints, a peculiar pigmentation of the skin, which, may be either dark or light brown, low blood pressure, and cardiac weakness, with feeble pulse and giddiness on prolonged effort. Besides these changes, old age brings with it wasting, often sub-

normal temperature, pain in the joints and a diminished blood glucose.

Now, the youngest sophomore in any medical school must have recognized in these symptoms the classical clinical picture of Addison's disease! Putting two and two together, these two fighters of old age have concluded that the guilty party in the process of senescence is represented by our adrenals and they want us to believe and preach the dictum that a man is as old as his adrenals, in other words take care of your adrenals and all the clock factories will go out of business, time and space will disappear at once.

Doctors Tvaroh and Rypova advise the use of adrenal extracts in the warding off of old age. They have not yet completed their investigations, but it seems that although adrenal extracts seem to have some influence on the individual symptoms of old age, they fail in the aggregate. Perhaps the body refuses to submit to the orders of foreign adrenal-extracts, and insists on having its own "juices." However, some success seems to have been attained at the Clinic for the Aged, and the subject is under high pressure investigation.

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EDITORIALS

National Health Conference

The medical profession is speculating with interest on the form the National Health Conference scheduled for July 18 to 20 will take. The term "conference" implies open discussion. In more than one of the projects launched by the current Administration dictation has supplanted discussion. It is to be hoped that the National Health Conference will really be what its title implies.

Since the Conference has been called at the suggestion of Mr. Roosevelt himself, there is reason to attach real importance to its deliberations and recommendations. Preliminary work for such a meeting has been going on for the past three years under the direction of the President's Interdepartmental Committee to Coordinate Health and Welfare activities.

The avowed purpose of the Conference is to formulate policies for the cooperation of medicine and the allied professions, private welfare groups, and governmental agencies in the provision of medical care. Everyone interested in the public health must subscribe to this aim.

Unfortunately, a large part of the preliminary work for this conference has been done by individuals and agencies with a strong predilection for compulsory sickness insurance. This gives rise to a

natural suspicion that the purpose may be not to formulate policies by free discussion but to bring about the adoption of an already formulated scheme for compulsory sickness insurance.

In too many meetings of this type the medical participants are not responsible officials of organized medicine or truly representative of the rank and file of the profession in any way. The steamroller for compulsory sickness insurance can then be brought into operation without fear of troublesome obstruction. It is highly important to the public health that the President's Conference eschew this sort of trickery.

Purse-String Puppetry

The use of the WPA to influence political elections should serve as a warning to those who urge further extension of governmental control over private enterprise. When a large proportion of the population is attached to the public purse-strings, the Administration in power is enabled to wield an unwholesome influence over political events.

Medicine has frequently cited the danger of political domination among its reasons for opposition to obligatory sickness insurance. Current attempts to influence the outcome of primaries through Administration pressure on WPA workers prove that this is no chimeric

There are many ways in which political dissidents on the medical panels could be made to feel the administrative lash. The vast amount of form-filing required of panel doctors provides an ever-present excuse for punitive action. Clerical errors could be made a reason for withholding pay checks. There are a thousand other petty devices by which friendly superiors could help, and hostile ones obstruct, insurance practitioners.

It is not merely his political independence which the physician forfeits to compulsory sickness insurance. As experience in Europe proves his professional independence is even more directly threatened. Unchecked by any necessity to pay for service, the demands of panel patients are frequently unreasonable and excessive. Often they clash with administrative policy. Caught between two millstones, the unhappy practitioner is forced to subordinate his honest judgment to expediency. The inevitable result is a loss of professional morale and a drop in professional standards.

Free from political interference, the American doctor has raised medical care to a level equalled in few countries and surpassed in none. Certainly no nation with compulsory sickness insurance offers its laboring classes service comparable to that enjoyed by the American worker.

It would be a great pity if bureaucratic control were allowed to reduce the political and professional standards of the medical profession to those of the WPA.

Observations on Fever Therapy in Chorea

Acute chorea like the rheumatic infections to which in all probability, it is related shows a marked liability to the development of acute endocarditis. Since the advent of fever therapy, this method of treatment has been used in large pediatric clinics for the purpose of shortening the individual attack. It seems, however, that a far greater advantage is to be

gained from this form of therapy according to the studies of Sutton and Dodge.¹

A survey of ninety-nine cases of chorea which were given fever therapy showed that at the end of a period of observation lasting from four to six years, only 6.66 per cent developed organic heart disease. In a group of untreated cases followed over the same length of time, 46 per cent acquired aortic lesions. The incidence of polyarthritis and fatalities from cardiac lesions was considerably less in the group submitted to fever therapy. In those cases observed for a shorter period the number of complications was even less.

Such a marked contrast between the two groups of cases is worthy of serious consideration. Assuming that the observations of Sutton and Dodge will correspond with those of other workers there is every reason to believe that the infectious process is inhibited by the induction of artificial fever. Such a modification of the course of a rheumatic disease overshadows in importance whatever time may be saved in the duration of an attack of acute chorea. To reduce to a minimum the incidence of organic cardiac disease, which until now threatened all cases of St. Vitus Dance, may soon be achieved by the more universal use of fever therapy.

CURRENT COMMENT

'THE GOOD AMERICAN is the man who says: There never was a time when it was more necessary for us all to pull together—for us all to co-operate, for each of us to put aside his own extreme personal viewpoint and prejudice and to make whatever concession or compromise is necessary for our common well being.'—A definition found in the January issue of *The Shaft*, a publication edited by the commentator Gabriel Heatter.

IT IS TO BE EXPECTED that in a period of uncertainty there should be numerous theories and panaceas offered to cure social ills. Thus being true it is inevitable also

¹ Sutton, L. P. and Dodge, K. G.: *Jour. Ped.* 12:490, 1938.

that the views one holds will determine in the minds of many whether he is 'conservative', 'liberal', 'radical' or one of the many shades in between these political beliefs

"In my opinion labels of this sort are too often applied. This is particularly true as it concerns medicine. For example, social theorists, accuse us of being 'conservatives'. Some go much further and say we are 'obstructionists'. Others of course, believe we are 'liberals'.

"I am certain that but a small portion of the public appreciates what medicine is doing. It is our business to see to it that the public does understand that we are not 'conservatives' who wish to obstruct progress but that it is our sincere purpose, as it ever has been, to accelerate it"—We heartily agree with the *Milwaukee Medical Times* of recent date in this contention

"IT HAS BEEN CONTENDED THAT the status of a Medical Profession parallels the stage of development and the level of social consciousness of the country in which it finds itself. The problems confronting the Profession cannot be solved without paying deference to conditions existing in the country at large.

"Nowadays we are inclined to take medical boards and associations for granted. It is difficult to imagine a time when the Medical Profession was without the direction and control they exercise. Their development, however, was far from accidental, it followed upon a definite need.

"The story of medicine in America is one of adaptation to rapidly changing conditions—and the end is not yet. Appreciation of this will be gained from 'American Medicine' by Sigerist of Hopkins, in which the history of medicine in America is ever presented in relation to the economic and

social background on which it was built."—From "The Annotator," a column in the *Westchester Medical Bulletin* for June

"THERE IS A SIMILARITY of thinking between far-sighted educators and far-sighted physicians with respect to regimentation of their respective professions. For that reason it seems strange that some of the very educators who plead for academic freedom and educational activities without strings attached, are listed among proponents of schemes and fancies which would bring about regimentation of the medical profession and deterioration of medical service. Those professors who lean toward socialization of medicine and encourage their students to think likewise should remember that the evils which would infest medicine through regimentation would be akin to those which they visualize in any system which would restrict academic freedom and expose education to financial dictatorship"—From the *Ohio State Medical Journal*

"GERMAN AUTHORITIES HAVE ordered doctors there to keep abnormal babies out of Nazidom, according to sources which *Newsweek* describes as 'extremely reliable'. 'As a medical man,' the Nazi government is quoted as saying, 'you will know how to prevent the child taking life and what to explain to the mother'.

"Meantime, the New York Hospital, New York City, has agreed to permit removal of two swastikas built into the 300-foot smokestacks of its power plant. The insignia were put there for decorative purposes long before Hitler's advent. Getting rid of them will cost about \$1,000"—From "The News-vane," a column in *Medical Economics*, in its June issue

THE CARNAGE OF PEACE

In a press release from the National Safety Council, the toll of accidental deaths and injuries for 1937 has been given as dead 106,000, permanently injured 375,000 and temporarily injured 9,400,000. The estimated cost of this civil carnage was \$3,700,000,000. While the deaths from accidents of all causes decreased four per cent from 1936, traffic accidents increased four per cent, home accidents decreased fifteen per cent, occupational accidents increased six per cent and public nontraffic accidents decreased five per cent.

On a mileage basis, however, notes the

AMA Journal, the motor vehicle death rate declined from 166 deaths per hundred million miles in 1936 to 159 in 1937. Of further slight encouragement is the fact that in 1937 twenty states cut their death toll from traffic accidents, and in all but one (based on ten months' information) this was accomplished in the face of increased highway traffic. Accompanying other significant figures is the information that fifty persons were killed in 1937 in accidents involving airplanes in scheduled domestic operations. In 1936 the total was sixty-one.

HOUSE OF DELEGATES

MINUTES OF THE ANNUAL MEETING

May 9 and 10, 1938

33. Report of Reference Committee on New Business C on Licensing of Foreign Physicians

Sections 13-35-36

DR. CLARENCE G BANDLER, *New York* Report of Reference Committee on New Business C

1 On the resolution submitted by the County of Queens, Subject "Influx of Foreign Medical Graduates."

WHEREAS, there has been a large influx of foreign medical graduates establishing practices in New York State, and

WHEREAS, these physicians are not familiar with the Code of Ethics governing the medical profession in this State, and

WHEREAS, a large number of such physicians violate the Code of Ethics before they are admitted to Organized Medicine, therefore,

Be It Resolved that the Medical Society of the State of New York recommend to the State Board of Medical Examiners that such physicians be given a copy of the Code of Ethics when making application to participate in examinations to practice medicine.

Your Reference Committee on New Business C approves this resolution, therefore, I move its approval by this body

The motion was seconded, and there being no discussion, was put to a vote, and was carried.

34 Report of Reference Committee on New Business C on Persecution of Austrian Professionals

Section 22

DR. BANDLER 2 Resolution submitted by the County of the Bronx.

WHEREAS, it has ever been the pride of the medical profession to engage in vital humane and unselfish endeavor,

WHEREAS medicine, like all science, transcends national and geographic boundaries,

WHEREAS we American physicians have a double heritage that of our profession and as citizens of the world's greatest democracy

WHEREAS because of such tradition and background we are intolerant of foul play and indignities committed against defenseless victims within or outside our national boundaries.

Therefore Be It Resolved that the Medical Society of the State of New York register a forceful protest against the humiliation and persecution of Austrian professionals belonging to racial or religious minorities particularly physicians so classified.

Be It Further Resolved that our delegates be instructed to present these resolutions at the American Medical Association convention.

Continued from June 15 issue

Your Reference Committee on New Business C approves this resolution, therefore, I move its approval by this body

The motion was seconded.

DR. WALTER D LUDLUM, *Kings* A motion corresponding to this was brought up in the Medical Society of the County of Kings. I yield to no one in my sympathies and in my sentiments with regard to oppression in China, Tierra del Fuego, Austria, Germany, Spain, or anywhere else, but I think it is no concern of this House or of the American Medical Association to express their sentiments in such a manner

DR. HARRY ARANOW, *Bronx* It seems to me that we are expressing only an opinion of sentiment, which does nobody any harm. What I want to bring out is that exactly similar resolutions were passed by this House a few years ago in reference to the German refugees, which our delegates brought to the A.M.A., where a similar action was taken.

DR. EDWARD M COLIE, JR., *New York* As the mover on this floor of that resolution which was passed, and which dealt with the German situation I am on record as to how I feel about this, but it seems to me futile in view of what is going on, and in view of the fact that our sentiment has been very definitely expressed, to go on reiterating it.

I also very much object to the phrase "the world's greatest democracy" that appears in this resolution. It sounds to me very vain glorious. This very democracy which we hope will endure contains at this time grave faults, so I think we had better be very careful how we assert this "world's greatest democracy" sentiment. God grant it may be and persist, but we have got to watch our step. Let us not assert it is. At present it is a pious wish

I would like to see this resolution lost, first on the ground that it reiterates and merely states that which we adopted two years ago here second, I object to the phrase "world's greatest democracy" which sounds vain glorious.

There being no further discussion, the motion was put to a vote, and the recommendation of the Reference Committee was lost

35 Report of Reference Committee on New Business C on Licensing of Foreign Physicians

Sections 13-33-36

DR. BANDLER 3 Resolution introduced by the County of Warren relative to licensing of foreign physicians

WHEREAS at this period in the history of our local and State Society, New York State is becoming a haven for many foreign physicians whose place in their native lands has caused them to come here, and

WHEREAS, during the past ten years 800 foreign physicians have been granted licenses to practice in this State, and

WHEREAS, our own native physicians have been required to undergo schooling and training which has become markedly more expensive during recent years, and

WHEREAS, foreign nations have for years protected the members of their medical profession from outside competition,

Therefore Be It Resolved, that the Medical Society of the County of Warren now propose that action be taken by the House of Delegates at the annual meeting to direct the Medical Society of the State of New York to sponsor appropriate legislation whereby qualifications for granting of licenses to physicians of foreign countries be made as rigid as those qualifications now in force for practicing physicians of the State of New York.

Be It Further Resolved that a copy of this resolution be immediately forwarded to the Secretary of the Medical Society of the State of New York, and

Be It Further Resolved that the Delegate of the County of Warren be instructed to sponsor or support a resolution to the above effect

Your Reference Committee on New Business C recommends that the House of Delegates of the Medical Society of the State of New York go on record to favor proposal of legislation requiring all physicians to be citizens of the United States before being licensed by the State of New York. I move the adoption of the recommendation

DR NATHAN B VAN ETEN, *New York*
I second the motion.

DR. JAMES F GALLO, *Herkimer* Mr Speaker and Fellow Delegates, I believe that one of the most important problems confronting us today is the problem of foreign medical graduates licensed in the State of New York in recent years. The situation is not only serious to you and me as practicing physicians and surgeons, but also to the thousands of young men in premedical and medical schools, and of course their parents.

Since 1929 we have been in a period of depression, during which time many physicians have had a difficult time earning a livelihood. I am told that here in New York City over three hundred doctors are on relief or are given work by relief to keep them from starving. I am told that a physician in one of the small villages along the Hudson River had been gaining a good livelihood for himself and family, living well, and providing for the future of his family. This young man, native born and educated in the United States, was compelled to leave because he could not compete with the unfair practices of a foreign physician.

In October 1936 a ruling was made by the Board of Regents of New York to the effect that no foreign graduate would be granted a license by reciprocity and endorsement to practice medicine in this state who registered after October 15, 1936. Many registered by cablegrams, letters, and other means before the dead line.

Recently some foreigners have employed able legal counsel, demanding a license by reciprocity, and others are demanding admission to our County Medical Societies, and threaten to employ legal counsel.

What are we coming to? What chance would you or I have in a European country? How about these young men who are studying days and working nights, and their parents who are borrowing money hoping to pay later? Are we providing for the future of these young men? Yes, we are, by filling their places with foreigners. Gentlemen, we must do something, and do it quickly.

Dr Harold Rypins, Secretary of the New York State Board of Regents, wrote an article in the February number of *Medical Economics*, in which he states that out of 1321 foreign doctors licensed in the United States in the five-year period ending October 1936, 843 were admitted into this state. I wrote Dr Rypins if he would be kind enough to elaborate on these figures for me so that I could present them to you. Unfortunately, I failed to receive the courtesy of an acknowledgment to my letter, consequently I resorted to the *Journal of the A.M.A.* for figures.

I say, gentlemen, we must protect our own now that the field is crowded. I say that foreigners must be citizens of the United States before being granted a license to practice in this state.

Mr Speaker, I have some figures I would like to show if I may.

SPEAKER KOPETZKY Will you hang them on the blackboard there?

Is there any further discussion?

DR. J. RICHARD KEVIN, *Kings* I have the greatest respect for the integrity, the uplifting influence and the policy of our Board of Regents. I have an equal respect for our Board of Examiners. You forget, gentlemen, that there is a law allowing a percentage of immigrants into this country from these various countries across the sea, and because there is such a law we must not, and will not, deprive that percentage of the opportunity to make their living after they get here. When we sit here and try to dictate what the Board of Regents should do, and what our Board of Examiners should do, why, gentlemen, we are going around in rings and rings.

The speaker who preceded me referred to Dr Rypins. There was never a greater Secretary that ever existed in that department than Dr Rypins. While we sympathize with the points brought out by the preceding speaker, the law is there, and we must obey it. We have officers of the law in Albany who will take care of our interests. Let us trust to them.

DR. DAVID J. KALISKI I wish the indulgence of the House because I think I introduced the resolution the year before last calling upon the State Society to memorialize the Department of Education to require an examination of all physicians coming to this country from abroad, and that the licenses by endorsement be no longer granted.

At that time there was some criticism of this action, but I believe it was taken in a good

cause, not to restrict those unfortunate individuals who were driven out of Germany at that time, but to make it possible to distribute this load throughout the country because of the fact that in other states they had to take the examination. I believe that rule was put into effect and became effective as of October 15 1936, and I believe that since that time licenses by endorsement have not been granted.

I feel it is not wise for this body to recommend to the Department of Education that legislation be brought about to make it necessary for a physician to be a citizen of this country before he can take examinations for the practice of medicine. America is differentiated from other countries because of its liberality. My parents and grandparents came to this country because America was a free country a haven of refuge. A great many unfortunates cannot find any other haven of refuge outside of this country today and perhaps the small mandated territory of Palestine. It seems to me that as liberal Americans we ought not to place this great burden on those unfortunates of having to be in this country at least five or six years before they can make an attempt to earn their living. I feel that we should make it necessary for those unfortunates to comply with the law but not to place too great hardships in their way because they will then become an economic burden and will have to be taken care of in some way by the community. I believe that the generous heart of America goes out to these poor unfortunates, and I feel that the medical profession, a great liberal profession, should not restrict the opportunities of these men to too great an extent.

SPEAKER KOPETZKY Dr Gallo has the floor. While he was posting his statistics I permitted, quite irregularly I grant but in the interests of conserving time, others to discuss. You have all made up your minds on this motion, but Dr Gallo has the floor technically and he will be permitted to continue.

DR. JAMES F. GALLO *Herkimer* I would like to explain these figures. "C" represents men graduated from Canadian Medical Schools "F" represents men graduated from foreign medical schools, but excluding Canadian schools "E" indicates men admitted by examination "R" represents those admitted by reciprocity and endorsement.

The number of Canadian educated men admitted by examination into the United States is fairly high in the last four years. The number of foreign educated men, excluding Canadian, admitted by examination into the United States increased from 129 in 1933 to 636 in 1937. The total number of Canadian educated and European educated men increased from 232 in 1933 to 755 in 1937—those admitted by examination. The total number of Canadian educated and foreign educated admitted by reciprocity into the United States runs from twenty in 1933 to 286 in 1937. The total number of Canadian educated and foreign educated admitted by examination or reciprocity into the United States runs from 252 in 1933 to 1,041 in 1937.

Now we will consider New York State. The total number of men licensed in New York

State by examination runs from 747 in 1933 to 1,061 in 1937, the total by reciprocity from 307 in 1933 to 586 in 1937 the total by examination and reciprocity in New York State being 1,054 in 1933 and 1,647 in 1937.

The Canadian-educated admitted by reciprocity in New York State in 1933 ten. You see that figure remains practically constant—ten in 1933 eight in 1934 eight in 1935, seventeen in 1936 and nine in 1937. The foreign-educated admitted by reciprocity is another story. In 1933 the num-

TABLE I

	1933	1934	1935	1936	1937
C Adm by E. U.S.	103	95	92	112	119
F Adm by E. U.S.	129	170	302	380	636
Total C & F by E. U.S.	232	265	394	492	755
Total C & F by R. U.S.	20	131	81	307	286
Total C & F by E & R. U.S.	252	396	475	799	1,041
Total by E. N.Y.	747	834	879	932	1,061
Total by R. N.Y.	307	456	395	585	586
Total by E & R. N.Y.	1,054	1,290	1,274	1,517	1,647
C Adm by R. N.Y.	10	8	8	17	9
F Adm by R. N.Y.	7	122	69	237	196
Total F & C by R. N.Y.	17	130	77	254	205
C Adm by E. N.Y.	36	28	30	31	25
F Adm by E. N.Y.	67	87	190	217	39
Total C & F by E. N.Y.	103	115	180	248	422
Total C & F Adm. N.Y.	120	243	257	502	627
Total C & F Adm. U.S.	252	396	475	799	1,041
Total C & F Adm. N.Y.	120	243	257	502	627
Total by E & R. N.Y.	1,054	1,290	1,274	1,517	1,647
% C & F to total No. Licensed in N.Y.	11%	19%	20%	23%	38%

"C"—Graduates of Canadian Medical Schools.
 "F"—Graduates of Foreign Medical Schools (not Canadian).
 "E"—Admitted by examination.
 "R"—Admitted by reciprocity and endorsement.

ber was seven, and a search of the statistics for several years previous to that, shows that was about the average. But see how that jumped from seven to 196 in 1937, in spite of the new ruling made in 1936. That runs seven in 1933 122 in 1934 sixty nine in 1935, 237 in 1936, and 196 in 1937. This year I understand there are 146 who have registered so far for endorsement by reciprocity, in spite of the ruling passed two years ago.

The Canadian-educated admitted by examination into New York remains about the same—thirty six in 1933 twenty-eight in 1934, thirty in 1935 thirty-one in 1936, and twenty five in 1937 but the number of foreign educated admitted by examination in New York State runs from sixty seven in 1933, to eighty seven in 1934, to 150 in 1935 to 217 in 1936, and to 397 in 1937. In other words, now the number by reciprocity is decreasing but the number by examination is increasing. The total number of Canadian-educated and foreign-educated admitted by examination into New York runs from 103 in 1933 to 422 in 1937.

Now we come to the total of Canadian-educated and foreign-educated admitted by examination and reciprocity into New York as compared with the entire United States. The total number admitted in New York in 1933 was 120 and in the United States in 1933, 252. This year there were 627 such admitted in New York (the year of 1937) compared to 1,041 for the entire United States.

The total of Canadian and foreign educated admitted in New York by examination and reciprocity in 1933 (that is this figure here—pointing to the column ahead) is 120, compared with the total (no matter where educated) admitted in New York by examination and reciprocity in 1933 of 1,054. Now compare those totals with 1937 where the total of Canadian and foreign educated admitted into New York both by examination and reciprocity was 627, and the total no matter where educated admitted into New York by examination and reciprocity was 1,647.

Now we come to the percentages. The total percentage of Canadian and foreign educated licensed in New York runs from eleven per cent in 1933, to nineteen in 1934, to twenty in 1935, to thirty-three in 1936, and to thirty-eight in 1937.

I think you gentlemen will agree with me that it is now time to act.

SPEAKER KOPETZKY Is there any further discussion?

DR. GRANT C. MADILL Mr Speaker and Gentlemen of the House, I assure you that nothing has given the State Board of Regents such a difficult problem to solve as this topic of the licensing of foreign physicians in the practice of medicine in this state. As I understand this resolution, there is only one question involved, and that is the matter of demanding some legislation requiring full citizenship before they can practice medicine, and I assume before they can take the examinations. Is that true?

DR. BANDLER Yes.

DR. MADILL That is very important and I think requires a good deal of thought. In the first place, the Federal Government allows into this country a quota of immigrants from foreign countries, and they are not all physicians. As the law is at present, a statement of their intention to become citizens is all that is necessary to take the examination. If, for instance, they have to come here and wait for five years before they can take the examination, it seems to me that that is an unnecessary hardship to fellow practitioners of medicine. It is not a matter of examination. We have now adopted a rule that all applicants from foreign countries for a license to practice medicine in this state must take the same examinations as our own graduates from our own medical schools. This seems to me to be a reasonable demand. We thought that this would help to lessen the number who came to our state. I think it will eventually. I think it will work out well. We are having fewer applications, and those who do apply are obliged to take the same examinations that our own graduates take.

I think there might be some conflict here with the Federal Government in demanding that these people remain here without a livelihood for five years. We admit them as citizens after that time, but before those five years are up they have all the privileges that our citizens have except the right to vote. If we now say to the practitioners of medicine coming from abroad that in addition to the denial of the right to vote, they cannot earn their livelihood by the practice of their profession during that trial period, that is going a long way. I believe this question requires pretty deep thought before we decide to pass a law, or advocate the passing of such a law, that will compel these unfortunate members of our profession to come here and wait for five years before they can earn a living from the practicing of their profession.

DR. JAMES F. ROONEY This discussion has continued for some time, and I think that very briefly the House, particularly the younger members of the House, might be informed as to what has happened in the past in relation to this sort of legislation.

In 1921, as chairman of the Legislative Committee of this Society, and with Dr. Downing, who was then the Assistant Commissioner for Higher Education, and with a Committee of the New York Academy of Medicine and a subcommittee of the Committee of the American Medical Association on Medical Education and Hospitals, we endeavored to enter into some sort of an agreement with foreign governments in relation to the licensure and reciprocal licensure of American physicians in their respective countries and of foreign physicians in this country.

They were perfectly willing to have their graduates licensed by reciprocity in the United States, but they were absolutely just as dead set against licensing American physicians in Europe then as they are today. There is not a country in Europe today into which an American physician can go, even Great Britain, and be licensed by reciprocity. In Great Britain particularly he must take the last two years of his medical course all over again before he can even present himself before the licensing board. France has an identical situation. No foreign physicians are licensed by reciprocity in any of these countries. That is the background.

So far as concerns the question of requiring that they shall be required to be American citizens, for about five successive years, with perhaps one or two intermediate years, under the direction of this House then, the Chairman of the Committee on Legislation introduced an amendment to the Medical Practice Act providing that every person who desired to practice medicine in the State of New York should be an American citizen. We fought for it, and in every instance it was eliminated by legislative groups and lost five successive times. I do not feel that there is any more chance of your getting through that kind of legislation today than there was before. That is the practical side of the situation.

There is no question about the fact that we

have got to consider not alone a kindness and liberality to the oppressed peoples of Europe, but we have got to begin to have some consideration for ourselves. (Applause) You all know the story of the old Arabian Sheik who brought up a young camel and made a pet of him, took it into his tent, put it to bed, and the camel grew up and got bigger and bigger, and the first thing you knew the camel had the tent and the sheik was sleeping on the sand. That does not sound like the words of an illiberal Democrat, if there is any such animal. (Laughter) We are changing names and labels and parties. I do not think that practically you can get enacted into a law a provision requiring that men shall become citizens before they are permitted to practice. I think you may however, be able to get into law that they shall make application for citizenship first before they can practice medicine. I think further you can do this if they do not complete their citizenship within the time limit set, five years, they shall cease to enjoy their license and shall forfeit their registration. I think that can be done.

So far as reciprocity is concerned, the discussor of this situation, Dr Gallo, has shown that they are still being licensed by reciprocity in the State of New York even in the last year from foreign countries. Despite what the Regent who just addressed you has said, I think the Board of Regents is still empowered to act under the law which permits them to license by endorsement of license, even with the statute passed in 1936. Any man who has obtained a position of eminence and authority in his profession, and who has practiced his profession for ten years can still obtain the privilege of license by endorsement. Am I right about that, Dr Madill?

DR. MADILL. Yes.

DR. JAMES F. ROONEY. So there is still that gap in the law. If they have practiced for ten years, they still can be endorsed under that provision of the law. The Board of Regents was instrumental in getting that rule through, and as I recall it, the old Section was 115. Dr Finnegan, who was then Assistant Commissioner for High School Education, was the sponsor for it, and it passed the legislature and that gave them the opportunity of endorsing the licenses at the end of three years. If in their opinion, the individual had the same educational qualifications as required of applicants in New York State.

To sum up, there is still a hole in the law. If you want to keep it, well and good. So far as the practicality of making every one of them become an American citizen before they can be licensed to practice I do not believe you can pass it in the Legislature. There is a reasonable possibility that you can require that they make application for citizenship prior to examination, and that they accomplish that at the end of a definite term of years or forfeit their license. In speaking about this matter I have no animus one way or the other but I think you must see this thing from a practical standpoint. Secondly I think it is beginning to be time for us to think about it.

SPEAKER KOPETZKY. If you gentlemen were here this morning—and most of you were—you know the amount of business we have before us, and you will shorten your addresses as much as you can. The Chair has no desire to hurry the discussion, and everybody should express any opinion they want to give, especially if they have an added fact to what has already been said. Dr Aranow has asked for the floor, and I want to extend the privileges of the floor to Dr Harold Rypins who is in the room, as well as anyone else who feels he must talk on the question.

DR. HARRY ARANOW. The members of the Committee, if I may speak, were not unanimous at all about the recommendation demanding full citizenship in order to practice medicine in this state. All we wanted to do was to bring it to the attention of the House of Delegates. The American College Association (I think they are called) have been trying for years to limit the number of students in the United States because we produce more students than we can take care of as doctors. In the last year thirty six per cent of all the men admitted to this state were foreigners. That question is sharply brought up before you, and it is up to the House of Delegates to realize that something must be done about it. I do not think the committee knows what to recommend to stop this situation. We thought we would bring it to your attention, and get the combined thinking of all on it. I personally feel that the thing ought to be turned over to the Council to work on during the year. I think this subject requires a considerable amount of attention and study and if I may be permitted to I will make that motion that it be turned over to the Council to think about it and take action, whatever action they may think fit to overcome this difficulty.

DR. GEORGE W. KOSMAK. I second that motion.

SPEAKER KOPETZKY. The question before the House is a question on reference. Is there any discussion?

DR. JAMES A. MILLER, *New York*. I think that is a very wise thing to do. It seems to me that it is impossible for the Reference Committee to entirely explore the possibilities of this very difficult subject. I think we all have our sympathies very deeply aroused on both sides of this subject and it is extremely complicated. Therefore, I think if we will take more time to thoroughly investigate into it, we will do justice to ourselves as well as to these people who are so deeply concerned. Consequently I am strongly in favor of referring this to the Council to make a very thorough study of this whole subject with recommendations.

SPEAKER KOPETZKY. I want to extend the privileges of the floor to Dr Harold Rypins before we continue the discussion.

DR. HAROLD RYPINS. Thank you for your courtesy! I will be very brief. I have no desire to urge any position or to make any recommendation to this august body but I would like to draw your attention to the facts in the case. Dr Rooney draws to the attention of

the House of Delegates the possibility that you might pass a law granting a license subject to an applicant becoming an American citizen within a given term of years. I would like to draw the House's attention to the fact that is the present law. A foreigner coming to this country must take out his first citizenship papers, before he can apply for a license. If he obtains a license, he must become a full American citizen within the expiration of ten years or he automatically loses his licensure.

Secondly, I would like to draw your attention to the fact that the question of licensing foreign graduates, even including Canadians, without examinations is now a closed subject by the action of the Board of Regents whereby all applicants who filed after October 15, 1936, are required to take the full medical licensing examination.

It is true that since October 15, 1936, the Board of Regents each month has licensed a few foreign physicians by endorsement. The reason for that is very simple. This is a group of physicians who actually made bona fide legal applications before that date but have been unable to obtain all the substantial evidence of education necessary to complete their papers. Perhaps many of you do not realize that a German physician residing in this country two or three years may be completely unable to obtain legal evidence of his education which he obtained twenty years ago. For that reason there have been, and will for a short time be, a sprinkling of cases of foreign physicians who will receive their licenses by endorsement. That is gradually dying out. In my opinion there are no more than at the most a dozen such cases pending, so the question of further licensure by endorsement is completely a closed question.

Since New York now requires all such foreign applicants to take the regular licensing examination, the status of this state is comparable to the status of some twenty other states who have always required examination and have never granted licensure by endorsement. For that reason the great flood of applications which heretofore was emptied upon New York State is now being distributed throughout at least half the country, consequently I would suggest that before you take any very definite action you understand that the total number of those coming into New York State by examination now is relatively small and will become smaller each year. My best estimate is that it will soon fall to a figure below one hundred a year.

I would also like to draw your attention to the fact that although I cannot see those figures from here, I believe there is a confusion arising out of the fact that American students who have gone abroad and who have graduated from foreign medical schools are classified in these tables as graduates of foreign medical schools. I believe as a matter of fact that actually one-third to one-half of these people are really boys from New York State who were not able to obtain admission to American Medical schools.

For all of these reasons I believe that we can say—and by the way that number has

been definitely diminished—with perfect safety that the acute crisis is passed and that the peak of the load has already been taken care of, and that it will diminish very rapidly. I do not think, however, that it will ever fall off completely.

The Board of Regents has taken every action within its legal power to diminish this influx, and the gentleman is correct in stating that the only way in which you can stop them further is by legislation requiring full citizenship, before licensure. However, I agree with Dr. Rooney as the basis of my legislative experience, that you cannot pass such legislation as a practical proposition. Therefore, there is no use passing the resolution asking the Board of Regents to take any further action because it has already taken all the action within power under the law.

One final point. I ask the indulgence of the gentleman from Herkimer County. I believe he obtained all his data from my office, and it is my custom to answer all letters within a week after receipt. Further, I will always be glad to give any information on this subject to any member of the House.

SPEAKER KOPETZKY The question before the House is on the reference of this matter to the Council for further study and report.

DR. BENJAMIN DAVIDSON, Kings I will not take up much of the time of this House. I want, for the information of the House, and also for the information of the Reference Committee to which this is going to go probably, to state that at Kings County a similar resolution was introduced last meeting, and it was defeated by a very large vote.

DR. ARTHUR J. BEDELL, Albany The gentlemen of the house who are seated in the rear cannot see these figures on the chart. There is a very great discrepancy between them and the facts that Dr. Rypins has just stated which are not borne out by the figures on the chart. I leave that for your consideration.

Further than that, Dr. Rypins did not take the important thing up, which is that the Board of Regents of this state can still grant licensure by endorsement. He led you to believe that that was all eradicated. That is an error. The situation is becoming acute. It makes little or no difference that a year ago we decided by an overwhelming majority we did not want to touch it. It is coming closer and closer to home. Some of you may have children that are growing up and who may wish to practice medicine. Under what conditions are they to be protected? We live in this country and we pay the taxes here, and more and more of them, so why should we not protect our own? It is nice to have sympathy but I believe the higher theological precept is that charity beginneth at home. (Applause)

SPEAKER KOPETZKY The question is on the motion to refer to the Council for study and report.

DR. JAMES F. ROONEY I want to speak to that. There is no reason in my opinion why this House should not settle this matter now without referring it to the Council for examination and

report. To do that would merely mean postponement, postponement, and postponement until next year perhaps because the Council will tread along, not wanting to take the hot end of the poker, and they will pass this over to the next House of Delegates, and you have got one more year gentlemen, within which perhaps a new crisis may arise, despite the crises we may have passed over, for there is still Austria and Czechoslovakia. Even in spite of the fact that our good friend Rypins said that the worst is over, I do not agree with him. I believe that this House should take whatever action it desires to take upon this matter here and now and not actually lay the matter on the table by referring it to the Council.

SPEAKER KOPETZKY Are you ready for the question on the reference? All those in favor of referring to the Council this matter for further study and report, kindly say "Aye," those opposed, "No." The motion is lost.

The question is on the adoption of the recommendation of the Reference Committee. Is there any further discussion on the Reference Committee's report, namely, that before a man is permitted, a foreigner to take his examination to practice medicine in this state, he shall be a full citizen of these United States? Is that right?

DR. BANDLER That is not it exactly May I read it?

SPEAKER KOPETZKY I wish you would.

DR. BANDLER "Your Reference Committee on New Business C recommends that the House of Delegates of the Medical Society of the State of New York go on record to favor proposal of legislation requiring all physicians to be citizens of the United States before being licensed by the State of New York."

DR. HOMER J. KNICKERBOCKER, Ontario May I raise a point of information? Is it not true that the present Regents do not license nurses who are not citizens of the United States?

SPEAKER KOPETZKY I can refer that to Dr. Madill.

DR. GRANT C. MADILL Yes, all professions.

SPEAKER KOPETZKY Are you ready for the question? The recommendation of the Reference Committee is before you for vote. Those in favor of the adoption of the Reference Committee's report and recommendation will kindly say "Aye," those opposed, "No." The Chair is in doubt. Those in favor will kindly raise their right hand those opposed will now raise their right hand. The motion is carried.

36 Report of Reference Committee on New Business C on Licensing of Foreign Physicians

Sections 13-33-35

DR. BANDLER This is also on the licensure of foreign physicians.

WHEREAS at this period in the history of our local and State Society, New York State is becoming a haven for many foreign physicians whose persecution in their native lands has caused them to come here and

WHEREAS during the past ten years at least eight hundred foreign physicians have been granted a license to practice in this State and

WHEREAS our own native physicians have been required to undergo schooling and training which has become markedly more expensive during recent years and

WHEREAS foreign nations have for years protected the members of their medical profession from outside competition

Therefore Be It Resolved that the Medical Society of the County of Herkimer now proposes that action be taken by the House of Delegates to urge the State authorities and the Board of Regents to take some definite action to protect the practicing physicians of New York State from foreign physicians and

Be It Further Resolved that the rules governing the granting of a license to practice medicine to these foreign physicians coming to New York State be at least as rigid as those rules which would apply to our own physicians should they attempt to obtain a license to practice in the countries from which these men come.

Your Reference Committee on New Business C recommends that the House of Delegates compliment the Board of Regents of the State of New York upon its strict adherence to licensure of foreign physicians as promulgated in its regulations since October, 1936 and advocates a continuance of this policy. I so move.

The motion was seconded, and there being no discussion, was put to a vote, and carried.

37 Vote of Appreciation and Thanks to Mr. H. F. Wanvig

SPEAKER KOPETZKY Dr. Chas Gordon Heyd announced that he had a matter that he wanted to bring before the House, and he asked for the courtesy of the floor.

DR. HEYD What I am about to read is in the nature of an emotional speech, and I ask your indulgence in presenting it in that the subject of these resolutions has had quite a severe sickness. It comes from the Insurance Committee, and I am presenting it in the capacity of an advisory member of that committee.

It is my pleasure to bring to the attention of this House the service of one of our representatives whose services to the State Society for many years have gone unmentioned by this House. I refer to our Insurance Representative, Mr. Harry F. Wanvig.

Mr. Wanvig was appointed as the Insurance Representative of this Society seventeen years ago. With that appointment there was placed upon him the responsibility of supervising the operation of the largest business enterprise in which this Society is engaged namely, the Group Malpractice Insurance Plan. Not many members understand the extent to which the Group Insurance Plan is in effect a mutual insurance undertaking—a \$300,000 a year business, the operation for which the Society is solely responsible through its Insurance and Legal Representatives.

Through these two representatives the Society drafts its own policy and endorsement form, fixes its own underwriting policy compiles its

own actuarial data, computes and promulgates its own rates, issues policies to its own members, and handles and defends all suits and claims against all of its members, whether insured or not. There is no other insurance undertaking like it any place in the world.

Everyone in the Society is familiar with the splendid work of Mr Brosnan, our Legal Counsel, who is generally conceded to be the foremost authority on medicolegal matters in the country, and this House has frequently commended him for the high type of service he has rendered year after year in handling the defense of suits and claims against our members, and for the other legal services which he renders.

But it is to the other part of the operation of the Group Plan that I want now to invite your attention the management of the business details of this great undertaking of the Society which has been carried on by Mr Wanvig and his able assistant, Mr Casper.

Having been chairman or a member of the Insurance Committee for over ten years, I know from personal observation the character of the services which have been rendered to the Society by Mr Wanvig, and I am sure that the Society has no more faithful servant.

He has labored year after year with only two objects in mind how to improve the malpractice insurance situation of members of the Society, and how to decrease the cost of that protection to the minimum.

He has competently handled all of the details that have fallen upon his shoulders, and built up a service organization that is a source of comfort and strength to all members.

He has ably and with dignity represented the Society in many conferences with Insurance Companies requiring tact and skill, which has created respect for the Society and the strength of its position in insurance circles generally.

He has never failed to put the welfare of members of this Society above all other considerations.

By taking on at his own expense an ever-increasing amount of the work usually performed by the insurance carrier, he has been able to reduce the operating expense charged to the Group Plan from 37½ per cent to 31½ per cent, and he hopes in time to secure further reductions. Thus, through the depression years when other costs have been mounting, he has been able to effect economies of operation which have been a direct saving in the cost of insurance for all members.

During the hard years of the depression, many members have found it difficult to pay their insurance premiums and would have been forced to discontinue their insurance protection had it not been for the fact that Mr Wanvig arranged a system of installment payments the notes for which have been accepted by the banks only upon his personal endorsement and this arrangement of installment payments is still available to all members who require it.

He has been alert to keep the Society fully informed of trends and inequalities that have crept into the operation of the Group Plan which required prompt revising.

He has saved the members of this Society

several hundreds of thousands of dollars in their insurance cost during the past seventeen years.

Through his painstaking analysis of costs he was able to lay before the Insurance Committee in the summer of 1935 information which led to the replacement of our insurance carrier on January 1, 1936. The proof of the value of that change which has saved the members of this Society over \$104,000 during the last two years alone has been presented to the Council, and will be presented to you tonight by me in the form of lantern slides, when only duly accredited delegates of the House of Delegates are present.

His health permitting, his service to this Society will be continued so that the members may feel that through our insurance department they will always be able to obtain the best malpractice insurance available at the lowest costs consistent with sound, able and reliable protection.

For these reasons, Mr Speaker, I move you a vote of appreciation and the thanks of the State Medical Society to Mr Wanvig for the character and value of the services he has rendered.

The motion was seconded, and as there was no discussion, it was put to a vote, and unanimously carried.

38 Report of Reference Committee on Report of Special Committee to Confer with State Hospital Association

SPEAKER KOPETZKY I will now recognize Dr Wentworth the Chairman of the Reference Committee on Report of Special Committee to Confer with State Hospital Association.

DR. EDWARD T. WENTWORTH The Committee to Confer with the State Hospital Association was appointed and confirmed at the June 17, 1937 meeting of the Council of the Medical Society of the State of New York, following specific request on the part of the Hospital Association of New York State that, "this special work, so ably begun be continued with unabated interest and endeavor throughout the coming years."

The Reference Committee has carefully studied this report and all other available data bearing on the relationship existing between the State Society and the State Hospital Association. It would appear that the objective of this Special Committee, during the past year, has been the elimination from hospital service, whether sold as private, semi-private, or insurance service, of any medical service on a remunerative basis. In other words, the objective of this Committee has been to make effective the principles laid down in Proposition 3 (1937) of the Revised Booth Committee Report of 1933, defining hospital and medical care "(a) Hospital care shall mean Provision of bed board, general nurse service, customary surgical dressings and medicines, and other facilities of the institution, not including medical care as defined in (b) (b) Medical care shall mean Any procedure or service by a licensed physician acting under authority of Section 1250, of Article 48 of the Education Law of the State of New York."

The Reference Committee approves of that objective and moves its adoption by the House.

Of the several methods available for attaining that objective, your Reference Committee commends

1 The Special Committee's suggestion that an attempt be made through the American Medical Association and the American College of Surgeons, to keep hospital practice in line with revised proposition No. 3 (1937), of the Booth Committee Report.

2 The Special Committee's suggestion that County Societies endeavor to control individual contracts for medical service on the part of their members.

Regarding the third method of attaining that objective, the Reference Committee considers legislative attempt to force this issue inopportune and unwise because the facts are not in conformity with such a law. It is necessary to convince hospital interests of the benefits to Society arising from elimination of all purchase and sale of medical service (referring particularly to pathology radiology and anesthesiology) before it is practical to legislate abandonment of such a generally existing system. In other words the Reference Committee approves continuing amicable conversations with the State Hospital Association in an attempt to reach an agreement on what constitutes the practice of medicine by hospitals and in an attempt to establish by custom the principles of hospital care and of medical care defined in proposition No. 3 (1937) of the revised Booth Committee Report 1933 and moves adoption of such policy.

Your Reference Committee suggests that such negotiations can well be carried out by a small Committee of the Council of which the General Manager shall be a member.

With these suggestions your Reference Committee moves the adoption as a whole, of the Report of the Special Committee to confer with the State Hospital Association.

The motion was seconded, and there being no discussion, it was put to a vote, and was adopted.

39 Report of Reference Committee on Report of the Secretary

DR. LOUIS A. VAN KLEECK *Nassau*. The members of the Reference Committee encountered a difficult task when they attempted to report on the work of the Secretary and General Manager for his first year as full time official of the Society. His duties, which are so numerous and so diversified have been ably accomplished. The inauguration of new plans and new ideas have contributed greatly to the efficiency of the Central Office, and the coordination of the various activities has conserved so greatly in time and expense that it is impossible for this Committee adequately to express its approval of the report as a whole.

We wish to emphasize and commend the wisdom of the House of Delegates in creating the position of full time Secretary and General Manager. This is well proven by the great amount of work of the Central Office and the increasing calls for secretarial duties.

We note the amount of correspondence and telephonic communications has been greatly increased by the enlarged membership and also the fact that the Secretary has been present in person, except when making trips in connection with the Society's work.

We approve of the new methods of office care and management to improve the service of the Central Office.

Especially, we wish to commend the work of the clerical force, who have so ably assisted the Secretary. They have discharged, freely and unselfishly their regular as well as additional duties with care and diligence.

The increase of 1040 new members is noted and also, with profound regret, the loss by death of 205 members.

We note with interest the comparison of membership for the last ten years showing a drop between the years of 1931 and 1933 and an increase between the years of 1935 and 1937.

The Committee extends its congratulations to the nineteen Honor County Societies.

In these uncertain times it is a happy condition to note this large number of our component societies have enrolled all eligible practitioners into the County Society unit. The strength of our profession, in matters pertaining to the group, lies in its solidarity. When a component County Society has one hundred per cent membership it adds to the force of medical opinion and the range of medical influence in the community.

It is gratifying to note the work and accomplishments of the Secretary in the coordination of activities. We believe, also the new plan of supplying each member of the Council with full agenda and minutes amply repays the increased amount of stenographic labor involved.

Committee work has been greatly facilitated, time has been saved, and expense diminished by the Secretary attending the various Committee meetings and aiding in Committee correspondence. We also feel that matters requiring publicity have received careful consideration and adequate attention.

We wish to comment on the fact that the Secretary has attended over fifty meetings since May 1937 as follows: Regular recurring Council Meetings, Board of Trustees Meetings, Various Meetings from public health to World's Fair arrangements, District Branch Meetings, etc. Also that he read a paper in November 1937 before the American Medical Association Annual Conference of State Secretaries and Editors, entitled "A State Medical Association's Part in a Pneumonia Control Program".

The cooperation of the Officers of the State Society as well as Directors of various Bureaus, with the Secretary is noted with approval.

In conclusion the Reference Committee wishes to express its approval for the concise and constructive report of the Secretary.

We move the adoption of the Report as a whole.

The motion was seconded

DR. ARTHUR J. BEDELL. Were there any definite recommendations in that report?

DR. VAN KLEECK. No.

DR. BEDELL Did I not hear a recommendation regarding a Secretary for a section on Medicine? Was not that a recommendation?

SPEAKER KOPETZKY The Chairman of the Reference Committee will answer Dr. Bedell.

DR. VAN KLEECK A Secretary on a Section of Medicine?

DR. BEDELL Something like that I thought there was such a recommendation

DR. VAN KLEECK No

SPEAKER KOPETZKY The Reference Committee is making no recommendation.

DR. BEDELL I am sitting down with that understanding

The question was called for, and the report of the Reference Committee was adopted

40 Report of Reference Committee on Report of Board of Censors

DR. VAN KLEECK The Board of Censors met on February 5, 1938, to consider an appeal in the matter of exclusion from membership in the Suffolk County Medical Society of an applicant, Dr. Donald R. Keller of West Hampton Beach

After full consideration of the grounds for appeal and of records furnished, and of testimony, the Board of Censors of the Medical Society of the State of New York rendered unanimously the following decision

"Pursuant to the authority conferred on us by Section 6 of Chapter VI of the Constitution and By-Laws of the Medical Society of the State of New York, and in the interest of orderly procedure, we hold the decision appealed from should be modified to the extent that the appellant's application for membership in the respondent County Society shall still be considered open and undecided, and that the entire matter be remanded to the County Society for further action in accordance with the mandatory instructions contained in this decision."

The Report contains these mandatory instructions in detail

The Reference Committee approves of the action of the Board of Censors and moves the adoption of the report

The motion was seconded, and there being no discussion, was put to a vote, and was unanimously adopted

41 Report of Reference Committee on Reports of District Branches

DR. VAN KLEECK We note with profound regrets the death of Dr. W. C. Buntin, in the report of the First District Branch

We wish to commend the President of the Medical Society of the State of New York, Dr. Charles H. Goodrich, for his attendance and interesting papers on Preventive Medicine, which he presented at each District Branch Meeting. His interest and charm greatly enhanced the popularity of the various Branch Meetings

We approve of the increasing high standards and scientific programs which have characterized each of the Annual Branch Meetings. We

also note the excellent attendance of each meeting

The Reference Committee recommends the work of the District Branches be encouraged and continued

We move the acceptance of the report.

The motion was seconded, and there being no discussion, was put to a vote, and unanimously adopted

DR. VAN KLEECK Now we move the acceptance of the report as a whole.

The motion was seconded, and there being no discussion, was put to a vote, and unanimously adopted

42 Report of Reference Committee on District Branch Executive Committee Meetings

DR. VAN KLEECK We approve of the custom of the Executive Officer to meet the Executive Committee and the Presidents of the component County Societies of each Branch as soon as possible after the Annual Meeting of the State Society, to determine the time and place for the next Annual Meeting of the Branch and also to discuss features of the program for the use of the President of the Branch or his program committee.

We believe that these conferences afford a better opportunity for coordination of the State Society's program and other problems of general interest, than would an annual conference of County Society Presidents

We note the Executive Officer attended each annual District Branch Meeting and assisted with the registration, and also that the registration of the eight District Branch Meetings is approximately the same number as register at the Annual Meeting of the State Society, and that approximately fifty per cent registered for both meetings

We agree that the District Branches both through their executive conferences and annual meetings are exerting a very powerful unifying influence, as they are an intermediary organization between the County Societies and the State Society

We note also that the Executive Officer visited fourteen County Societies, and took part in the program of seven, also addressed two County Auxiliary Meetings, and assisted many County Societies by correspondence

The enthusiastic and willing assistance of the Executive Officer to the President, Secretary, and Committees of the Society receive the highest commendation of this Committee

We move the adoption of the Report as a whole.

The motion was seconded, and there being no discussion, was put to a vote, and was unanimously adopted.

43 Report of Reference Committee No VI on Report of the Council

Section 47

DR. GEORGE BAEHR Reporting for Reference Committee VI on Report of Council Concerning topic No. 11—Medical Care.

Welfare Law Revision

It is felt by the Reference Committee that the Resolution on page 21 of the Council's report, regarding the creation of a Law Revision Commission, is dangerous because, in addition, to a desirable codification of medical and welfare laws, it would open up at one time to amend the Medical Practice Act, the Public Welfare Laws, the Workmen's Compensation Act, and other laws relating to medicine. It has taken generations of effort to develop these laws, and the Reference Committee therefore wishes to express caution concerning the continuation of efforts to secure the passage of a blanket bill of this nature.

I move the adoption of the Report of the Reference Committee VI

The motion was seconded.

SPEAKER KOPETZKY The motion has been duly made and seconded that we adopt the Reference Committee VI on the Report of the Council recommendation advising caution in trying to introduce legislation tending toward the creation of a Law Revision Commission. Is there any discussion?

DR. ARTHUR J. BEDELL I move as an amendment that the House of Delegates go on record as disapproving any further action on the part of this Committee.

DR. SAMUEL B. BURN I second that motion.

DR. BEDELL May I discuss it?

SPEAKER KOPETZKY You may

DR. BEDELL It gives affirmative action to the thought expressed, as I take it, by the Reference Committee.

DR. BAEHR Yes.

SPEAKER KOPETZKY Are you ready for the question on the amendment? Those in favor of the amendment suggested by Dr. Bedell kindly say "Aye" those opposed, "No." The amendment is carried.

Now on the report of the Reference Committee as amended, which is before you for action, are you ready for the question? Those in favor will kindly say "Aye" those opposed, "No." The Reference Committee's report as amended is adopted.

Please continue, Dr. Baehr

Medical Expense Indemnity Insurance

DR. BAEHR The Committee endorses the action of the Council in their efforts to limit the writing of Medical Expense Indemnity Insurance to non-profit organizations.

This is not to be construed as an expression of opinion concerning the merits of Medical Expense Indemnity Insurance itself.

I move approval of this part of Reference Committee No. VI's report

The motion was seconded.

DR. ARTHUR J. BEDELL I do not understand that recommendation. Will the Chairman of the Reference Committee kindly inform me what it means?

DR. BAEHR The Council has taken efforts to limit the writing of medical expense indemnity insurance to non-profit organizations. We

believe that that principle is correct, that it should be limited to non profitmaking organizations, but the entire question of medical expense indemnity insurance itself was too large an order for us to consider in the few minutes that we could devote to it, so we are not expressing any opinion on medical expense indemnity insurance, but we are expressing an opinion upon the action of the Council in limiting such insurance to non profit organizations.

DR. BEDELL I cannot correlate those two thoughts. It seems first we are not expressing an opinion, and then we do express an opinion.

DR. BAEHR We are expressing approval of the Council's action in trying to eliminate that part of medical expense indemnity insurance which might be underwritten by profitmaking insurance companies.

DR. BEDELL Is it so stated in the recommendation?

SPEAKER KOPETZKY Yes, sir. The recommendation of the Reference Committee is their expression of approval of the principle laid down by the Council of limiting the writing of medical expense indemnity insurance to non-profit organizations. They do not take any other question up on the matter of medical expense indemnity insurance they approve only of the principle of non-profit sharing organizations engaging in that kind of insurance. Nothing else is acted on. Is that correct?

DR. BAEHR Yes

DR. BEDELL I am sorry gentlemen to stand up so much, but I wonder if this strikes you as it does me. We are now if we pass this accepting the approval of that type of insurance. Is that the desire of the House? Am I correct?

SPEAKER KOPETZKY That is the question before the House, and the House will tell us

DR. BEDELL I certainly most sincerely trust the House will vote that down

DR. FREDERIC E. ELLIOTT I move that this be deferred until the report of the Reference Committee which is considering this question now up in the balcony has been received. They are considering this specific question of medical expense indemnity insurance.

The motion to table was seconded, put to a vote, and carried.

SPEAKER KOPETZKY The matter is tabled until that Committee reports.

Other Insurance and Group Plans for Medical Care

DR. BAEHR (Associated Physicians Service, Inc.) The Committee endorses the action of the Council in not approving the "Associated Physicians Service, Inc.," because it falls within the group of profit making organizations.

SPEAKER KOPETZKY You have heard the recommendation of the Committee. What is your pleasure?

DR. JAMES F. ROONEY I move that that recommendation also lie on the table until we discuss the report of the Reference Committee considering this specific topic of medical expense indemnity insurance.

The motion was seconded put to a vote, and carried.

SPEAKER KOPETZKY That is also tabled until that other Reference Committee is ready to report.

DR. BAEHR Continuing, as to the Bureau of Cooperative Medicine, no decision is recorded by the Committee because of inadequate information.

SPEAKER KOPETZKY What is your recommendation?

DR. BAEHR We have none. The Employees Group Plan for Medical, Surgical and Hospital Care, the Committee commends the Council for bringing this matter to the attention of the Insurance Department, which resulted in termination of the enterprise.

I move the approval of this part of the Committee's report.

The motion was seconded, and there being no discussion, was put to a vote, and was adopted.

Medical Care vs Hospital Care

DR. BAEHR This is on the Report of Council Concerning Topic No 12.

The Committee commends the action of the Council in pressing for acceptance by Hospital Service Plans of the 1937 revision of Proposition No 3 of the Booth Committee Report of 1933.

It cannot, without serious reservations, approve the action of the Council in recommending the introduction into the State Legislature of bills to prohibit any hospital or corporation from acting as the vendor of medical service. The idea behind such a bill is laudable, but it could interfere with legitimate forms of group medical service, some of which seem to be providing adequate medical care and satisfactory remuneration to the physicians.

The Committee approves the recommendation of the Council that the Society request the American Medical Association and the American College of Surgeons to refuse or withdraw approval of hospitals that do not comport themselves in accordance with the principles of organized medicine, and that this affirmative action be transmitted to the House of Delegates of the American Medical Association.

Although the Committee is in accord with the principle expressed by the Council concerning the desirability of providing means of disciplining members of the Society who participate in medical schemes, contracts, or plans that do not conform to the principles outlined in the revised Booth report, the Committee sees a serious objection to applying such methods of discipline only to members of organized medicine, and ignoring physicians who are not members of organized medical societies. The Committee, therefore, cannot approve of this action of the Council without reservations.

I move the approval of this part of the Committee's report.

The motion was seconded, and there being no discussion, it was put to a vote, and was unanimously adopted.

Federal Subsidies for Consultation for Obstetric and Pediatric Patients

DR. BAEHR On Report of Council Topic

No 14. Because of the difficulties in designating consultants within convenient distances of rural communities, the Committee feels that Federal Subsidies for these purposes might, in part, be used to advantage if employed to provide opportunities for graduate obstetric and pediatric training to physicians practicing in rural communities of 10,000 inhabitants or less, where consulting facilities are often not available.

The provision of consultants is praiseworthy, provided certain difficulties which are visualized can be eliminated.

I move the approval of this part of the Committee's report.

The motion was seconded.

DR. ARTHUR J. BEDELL I am again in doubt as to what is meant by the Reference Committee.

SPEAKER KOPETZKY Ask your question.

DR. BEDELL The question is, what do we approve if we adopt this?

DR. BAEHR You would be approving the opportunities for graduate obstetric and pediatric training to physicians practicing in rural communities of 10,000 inhabitants or less, or where consulting facilities are often not available, afforded by Federal Subsidies. That is one thing. The other is as to the payment of consultants in rural communities. The Committee was not willing to go on record as approving the use of Federal Subsidies for this purpose until the matter has been more thoroughly considered, and the difficulties, which are too detailed to go into at this time, are eliminated. Therefore, we are only approving of the first part of this recommendation.

SPEAKER KOPETZKY They are approving a graduate obstetric and pediatric training to physicians practicing in rural communities of less than 10,000 with Federal funds. What is your pleasure?

DR. JAMES F. ROONFY I do not see why we should put ourselves in a position of dipping our hands into the treasury in subsidies and that sort of thing. There is an old Scotch maxim which says "Whose bread I eat, his song I sing."

I, therefore, move you that all of the provisions of this report, with the exception of its pious wishes, as expressed in the report, concerning the desirability of consultants, lie on the table indefinitely.

DR. WILLIAM M. PATTERSON I second that motion to table.

The motion was put to a vote and carried.

SPEAKER KOPETZKY The motion to lay on the table indefinitely has been carried. We will continue with the report of the Committee.

44. Report of Reference Committee on Report of Special Committee on Matters Pertaining to Medical Care (Council No VI)

Sections 60-66

DR. BAEHR Regarding Report of Special Committee on Matters Pertaining to Medical

Care, the Committee heartily approves of the definition of "Adequate Medical Care," and feels that the Special Committee should be complimented upon an excellent piece of work. The entire report of the Special Committee on Matters Pertaining to Medical Care is a statesmanlike pronouncement.

The only changes the Committee would recommend are on page 43 column 2 line 3, where the words "organized medicine" should be changed to read "medical profession," and on page 43, column 2, paragraph 3 where the words "organized profession" should be changed to read "medical profession", so that it applies to all duly licensed physicians, and not merely to members of organized medical groups. This thought should be carried out throughout the report to apply to all practitioners of medicine.

The Committee specially commends the statement of the Mott Sub-Committee

"We believe it is the duty of the medical profession to examine with sympathetic interest and a spirit of mutual cooperation, any plan proposed by laymen to finance medical service expense."

The Committee also endorses the three proposed fundamental requirements for approval of any plan of medical care.

In conclusion, the Committee wishes to point out the significance of the last paragraph of the Mott Sub-Committee's Report, which reads as follows

"It is the duty and prerogative of physicians to provide competent professional service, properly controlled and disciplined by themselves and not by laymen, nor by government bureaus, or officials, and that it is equally the prerogative and duty of properly qualified non medical persons or agencies to provide the facilities and financial support for this competent medical care with strict adherence to the three requirements specified in this report."

I move the approval of this part of the Committee's report.

The motion was seconded, and there being no discussion, it was put to a vote and was carried.

DR. BAEHR One last thing the Supplementary Report of the Special Committee on Matters Pertaining to Medical Care in the Field of Mental Hygiene

The Committee approves of the Supplementary report of the Special Committee on Mental Hygiene, and all of its recommendations except for the last paragraph of recommendation "3" which provides for the creation of a Special Section of the Society on Psychiatry and Mental Hygiene.

I move the approval of the recommendation of the Committee.

The motion was seconded.

DR. JAMES F. ROONEY It seems to me that this constitutes the creation of a new Section.

SPEAKER KOPETZKY They are opposed to the creation of a new Section, as I understand it.

DR. BAEHR We recommend the rest of the

report except the part that would recommend that Section.

DR. ROONEY I did not understand it that way.

There being no further discussion, the motion was put to a vote, and was adopted.

DR. BAEHR I would now move the adoption of the Report of the Committee as a whole, with the exception of such portions as have been laid on the table indefinitely or action on which has been postponed to a particular time.

The motion was seconded, put to a vote, and unanimously carried.

SPEAKER KOPETZKY Thank you Dr. Baehr!

45 Report of Reference Committee No VI on Council Report on Matter of Contract Practice

DR. BAEHR The Committee approves of the resolution of the Council which states that the House of Delegates suggest to all component County Medical Societies, the setting up of a mechanism through proper Committees, to aid the members in judging contracts under the official standards before they are undertaken.

I move the approval of this part of the Committee's report.

The motion was seconded.

DR. BEDELL I would like the exact terminology of that latter part.

DR. BAEHR 'The Committee approves of the resolution of the Council which states that the House of Delegates suggest to all component County Medical Societies the setting up of a mechanism through proper Committees to aid the members in judging contracts under the official standards before they are undertaken.'

DR. BEDELL The point that I have, sir is what is this official standard?

SPEAKER KOPETZKY The A.M.A. standard, of course.

DR. BEDELL Why not put it in as such?

SPEAKER KOPETZKY You are privileged, sir, to make any motion you choose.

DR. BEDELL I move to amend it and make the resolution read under the official American Medical Association standards

DR. BAEHR I am ready to accept that.

SPEAKER KOPETZKY The amendment is accepted by the Chairman of the Committee and is therefore part of the original recommendation of the Committee.

The question being called for, the motion was put to a vote, and carried.

46 Notice of Amendment to By Laws Change of Dues Year

SPEAKER KOPETZKY Before we proceed to other business I wish to make notice of amendments to the By Laws suggested by the Trustees to be recorded published once, and acted upon next year. The purpose of these amendments is to make the dues year coincide with the fiscal year, which is under the present By Laws July 1st to June 30th of the succeeding calendar year.

Amend Chapter I, Section 2 (a) by adding a sentence to read

"The dues' year shall coincide with fiscal year, July 1st to June 30th of the succeeding year"

Alter (b) to read

"A member whose dues and assessments are unpaid after December 31st of any current year is not in good standing"

Alter (c) to read

"A member whose dues and assessments are unpaid after June 30th of any current year shall automatically be dropped from the rolls of membership" etc.

Add a new portion (d) to read

"The change of the dues' year shall first become operative on July 1, 1940, provided, however, that County dues and State Assessment shall be paid at half the annual rate for the six months' period, January 1, 1940, to June 30, 1940, the full regular annual rate to be paid thereafter, as herein before provided"

If the amendment previously suggested by the Council, providing that dues and assessments for members elected or reinstated on or after November 1 of any calendar year shall be charged to the next calendar year be adopted, it will be necessary to change the month and day from November 1st to May 1st of any calendar year

These are amendments suggested by the Board of Trustees and will be acted upon after publication once at least next year

47 Reconsideration Reference Committee Report on Federal Subsidies for Obstetric and Pediatric Patients (Council No VI)

Section 43

DR HOMER J KNICKERBOCKER, *Ontario* I move a reconsideration of Reference Committee of the Council's Report No VI, under the heading of Topic 14, "Federal Subsidies for Consultation for Obstetric and Pediatric Patients" It is clearly evident that the members, including Dr Rooney, did not understand what this was all about.

SPEAKER KOPETZKY Did you vote affirmatively on that recommendation of the Committee's?

DR. KNICKERBOCKER I did

SPEAKER KOPETZKY Does anybody who voted affirmatively on that second the motion to reconsider?

DR. HARVEY B MATTHEWS, *Kings* I second it.

SPEAKER KOPETZKY You voted affirmatively for it?

DR. MATTHEWS I did

SPEAKER KOPETZKY The motion is to reconsider the report of Reference Committee No VI on Federal Subsidies for Consultation for Obstetric and Pediatric Patients, which you just a few moments ago adopted.

DR BEDELL That was tabled, as I understand it?

SPEAKER KOPETZKY Yes, tabled indefinitely
DR. BEDELL Then it takes a two-thirds vote as I understand it to lift it from the table.

SPEAKER KOPETZKY You are right.

DR. JAMES F ROONEY I rise to a point of order on which I shall ask the Chair to rule. A motion to table indefinitely having been passed, it cannot be taken up again at the immediate session at which the motion to table indefinitely was passed.

SPEAKER KOPETZKY Your point of order is well taken, and the motion to reconsider at this session is out of order

48 Report of Reference Committee on New Business B on Public Hearings of Medical Testimony Under Workmen's Compensation Law

Section 14

DR. THOMAS M BRENNAN, *Kings* Reporting for Reference Committee on New Business B on the resolution presented by the County of Monroe and read by Dr Costello

WHEREAS under the rules of the Workmen's Compensation Law, administered by the Department of Labor of the State of New York, it is required that all hearings, including lay as well as medical testimony, be held in public and in the hearing and presence of the claimant and others, and

WHEREAS physicians having to testify necessarily have to be descriptive of the patient's illness or accident, and factors leading up to the same, and

WHEREAS the medical profession recognizes most acutely the destructive influence of such testimony on the patient and other witnesses at such hearings,

Be It Resolved on the recommendation of the Committee on Nervous and Mental Diseases that the Medical Society of the County of Monroe request the Medical Society of the State of New York to petition the Department of Labor of the State of New York, to amend its rules of procedure so that all medical testimony be held only in the presence of the referee, the claimant, and the legal representatives of the claimant and carrier, and that no attorneys, or insurance adjusters, other than those involved in the case, should be present

And Be It Further Resolved that a copy of this resolution be sent the House of Delegates of the Medical Society of the State of New York Reference Committee on New Business B approves this resolution

I move its adoption.

The motion was seconded, and there being no discussion, it was put to a vote, and adopted.

49 Report of Reference Committee on New Business B on Resolution About Ex-Mental Hospital Patients a Menace as Automobile Drivers

Sections 15-62

DR. BRENNAN In regard to a second reso-

lution presented by the County of Monroe, also read by Dr Costello

WHEREAS in the State of New York there are annually admitted to the State Mental Hospitals approximately fifteen thousand patients and 45 per cent of these are discharged or paroled, and

WHEREAS a large number of those discharged or paroled are automobile drivers, many of whom are a potential menace, be it

Resolved on the recommendation of the Committee on Nervous and Mental Diseases that the Medical Society of the County of Monroe urge that some measure be had requiring the notification to the Motor Vehicle Bureau, of all patients discharged or paroled from State and Private Mental Hospitals in the State of New York, so that appropriate action may be taken by the Motor Vehicle Bureau and

Be it Further Resolved that a copy of this resolution be sent to the Council of the Medical Society of the State of New York.

Reference Committee on New Business B approves this resolution.

I move its adoption.

The motion was seconded.

DR. EDWARD M. COLLIE, JR. *New York* It would seem to me, Mr Speaker, that there should be some elaboration in detail there, and that rather than have notification of all discharges to the Bureau of Motor Vehicles, that it be curtailed somewhat, otherwise we are rather prejudging the whole question. I think these cases ought to be properly tabulated and properly classified, certain classes to be very clearly certified to the Bureau of Motor Vehicles. There are certain other cases referred for observation on whom this might work a great injustice. Consequently I am prepared to move, and do now move, that this matter be recommitted for further study and submission of details.

The motion was seconded, put to a vote, and the matter was recommitted for study and submission of details to Reference Committee on New Business B

VICE SPEAKER FLYNN The recommendation of the Reference Committee is lost, and Dr Collie's motion is carried, so the matter is recommitted to the Reference Committee on New Business B for further study and resubmission to this House with details.

50. Report of Reference Committee on New Business B on Advisory Service on Malpractice Insurance

Section 24

DR. BRENNAN On the resolution read by Dr Masterson

"During the past few years there has been noted an increasing tendency on part of individuals and small groups to enter into negotiations with insurance companies other than the authorized carrier of the Group Plan without consulting the insurance advisory service provided by the Society. This creates an impression of lack of solidarity within the Society to meet with combined force the ever increasing threat of malpractice actions.

"Several of the overtures that are now being made to members are without merit and may lead to unsatisfactory defense and indemnity of members who seek protection outside the Group Plan. When beset by threats of malpractice actions, members naturally turn to the defense machinery of the State Society. It would appear altogether proper and logical, therefore, to seek the advice and guidance of the State Society's insurance service before entering into insurance arrangements which may, when needed prove inadequate and unsatisfactory

Therefore Be It Resolved that when approached by representatives of insurance companies other than the authorized carrier of the Group Plan, members be urged to consult with the Insurance Committee, Insurance Representative or the Legal Counsel before committing themselves to insurance arrangements other than those approved by the Society

"Be It Further Resolved that a copy of this resolution be sent to each component county society with instruction that it be brought to the attention of their members."

Your Reference Committee on New Business B gives its approval to this resolution.

I move its adoption

The motion was seconded and there being no discussion, it was put to a vote, and adopted.

51. Report of Reference Committee on New Business B on Personnel of Insurance Committee

Section 23

DR. BRENNAN This is still another resolution read by Dr Masterson

WHEREAS, the operation of the Group Insurance Plan is an important undertaking of the State Society requiring continuity of supervision and

WHEREAS, the compilation and analysis of the cost data upon which our insurance rates are predicated are complicated and require long and thorough study by men familiar with the operation of the Group Plan and mathematical computations, and

WHEREAS, it is desirable and necessary that the Chairman of the Insurance Committee be, so far as possible, continued in office from year to year and that he be in New York City where he can frequently consult with the Insurance Representative.

"Therefore Be It Resolved that the Treasurer of the State Society be designated as the continuing Chairman of the Insurance Committee."

Your Reference Committee on New Business B approves the resolution.

I move its adoption.

The motion was seconded.

DR. JAMES F. ROONEY I would like to know whether this does not infringe upon the powers of the President of this Society who appoints the committees not otherwise provided for subject to the approval of the Council. I merely ask that as a question. It would appear to me that is the President's prerogative and

while a hope might be expressed to that effect, it can be no more than a hope and not mandatory

DR. BRENNAN Answering Dr Rooney's question, we are simply subscribing to what the main part of the resolution states, that it is desirable and necessary that the Chairman of the Insurance Committee be, so far as possible, continued in office from year to year. There is nothing mandatory or dictatorial about this resolution

VICE-SPEAKER FLYNN Does that answer your question?

DR. JAMES F ROONEY That answers it.

VICE-SPEAKER FLYNN Is there any further discussion?

DR. JOHN J MASTERTON, *Kings* The object of this resolution is as follows. The Council is continually changing, and the Chairman of this Committee only learns what it is all about after he has been holding the position for some time. Therefore, we thought, in view of the fact that we do not elect a Treasurer as a rule every year, the Treasurer should be the Chairman of the Committee, and would be able to take care of it better than someone who was changed every year.

Dr Rooney's point is well taken, and further than that the Constitution says that the Chairmen of the different Committees must be members of the Council. The Treasurer is a member of the Council, and that will take care of that point therefore.

PRESIDENT-ELECT GROAT I am not worrying about the interference with any of my prerogatives as President, but I think this is a dangerous precedent to establish, the giving of specific instructions of this kind as to who shall or shall not be the Chairman of a Committee of the Council. So far as continuity is concerned, members of the Council hold for three years. They are re-elected only after a three-year period, assuming they are re-elected, whereas the Treasurer is elected every year. Assuming that he is re-elected every year, he would have to be re-elected six times to the other man's twice.

It is not necessary in my opinion to voice anything more than the principle. I certainly would like to see the Treasurer on the Committee at any rate, if I had anything to say about it.

PRESIDENT GOODRICH Dr Rooney's point is very well taken it seems to me. Section 1, of Chapter VII, of the By-Laws reads as one of the duties of the President, "He shall also appoint all members of committees of this Council, subject to the approval of the Council." Before that it says, "He shall appoint all committees not otherwise provided for, subject to the approval of the Council." It seems to me that we cannot, without changing our By-Laws, very well abrogate that function of appointment by the President. I believe that the general sense of the resolution is very, very right, but I think if the Committee could withdraw that part which designates some one person as the Chairman of that Committee, that the principle of it will be followed by all future presidents

It would be I am very sure unjust to Dr Groat and the President who follows him, and the President who follows him. He could not designate his Committee as he saw fit, and as Dr Groat has said it might make a very dangerous precedent in other regards.

DR. JAMES F ROONEY I move to amend the report of the Committee by excising from the report that latter section which practically directs that the Treasurer of the Society be the Chairman of this Committee.

The amendment was seconded.

VICE-SPEAKER FLYNN You have heard the amendment. Is there any further discussion?

The question was called for, and the amendment was put to a vote, and carried.

VICE-SPEAKER FLYNN Now on the recommendation of the Committee as amended.

The question was called for, and the recommendation of the Committee as amended was put to a vote, and carried.

52 Report of Reference Committee on New Business B on Statement of Public Policy for Cooperation with Official and Voluntary Lay Agencies for Provision of Medical Care

Section 17

DR. BRENNAN In regard to the resolution presented by the County of Westchester, which is as follows

"Resolved, that the following statement of public policy be hereby adopted and expressed by the Medical Society of the State of New York, and recommended to the American Medical Association, to the end that the American medical profession, through its duly constituted and recognized organization, may commit itself to a logical, affirmative and progressive policy through which it may proceed, in cooperation with official and voluntary lay agencies throughout the nation, to the provision of good medical care to every deserving citizen of the United States

Statement of Four Principles

"1 We believe and assert that good medical care can be made available to the poor and to persons in the lower income classes, through more rational economic arrangements than have yet been developed, and under the same conditions of freedom and privacy as obtain for their more fortunate self-sustaining neighbors,

"2 We submit that the medical profession has no valid objection to, but should endorse and encourage, the establishment of experimental programs of mutual or public assistance designed to aid such people in obtaining the benefits of good medical care, without resort to medical charity, provided only that in the administration of such programs, the function of the lay agencies involved must be limited and confined to the economic and financial aspects of the programs,

"3 We submit that the medical profession must and should insist, in the public interest, that the medical and professional aspects of any

and all such programs shall be administered, controlled, evaluated and operated under the responsibility of the organized medical profession entirely free of political interference or lay dictation.

"4 We submit that wherever any such plan of mutual or public assistance may be proposed, the approval and cooperation of the organized medical profession should be anticipated, provided that this clear and logical division of function and responsibility between the economic and the professional aspects is observed and properly implemented in the legislation under which the plan is to be established, or the articles of agreement under which the parties to the program propose to operate, and provided further that such plan is adapted to the local conditions of the community to which it is intended to be applied."

In summary we submit that

1 Organized medicine should favor such programs as will make good medical care more available than at present, by improved economic arrangements

2 Lay agencies must confine their functions to the non-medical aspects of any plans for that purpose.

3. The medical aspects of such plans must be absolutely and solely in the hands of the organized medical profession.

4 These two functions must be kept clearly inviolate and the status of the organized medical profession firmly established by suitable legislation.

Your Reference Committee on New Business B believes that the points made in the statement of public policy set forth in these resolutions are sound and commendable. On the other hand, the Committee considers it unwise to approve this resolution inasmuch as this statement of policy embodies nothing new and is similar if not identical to the policy which activated the American Medical Association when it formulated and promulgated its ten points in dealing with this problem. Your Reference Committee disapproves the resolution, and I move that it be not adopted.

The motion was seconded.

VICE-SPEAKER FLYNN It has been regularly moved and seconded that the resolution be not adopted. An affirmative vote will disapprove of the resolution.

The question being called for the motion was put to a vote, and the recommendation of the Committee adopted

53 Report of Reference Committee on New Business B on Compulsory and Voluntary Health Insurance

Section 12

DR. BRENNAN In regard to the resolution presented by Albany County, which is as follows

"WHEREAS the Medical Society of the State of New York, has always opposed the enactment of any compulsory health insurance law and

"WHEREAS it is a recognized fact that most states or countries having compulsory health in-

surance began by promoting voluntary insurance or indemnity schemes, and

"WHEREAS there have been bills before the Legislature providing for legislation that would enable the creation of compulsory or voluntary health and medical indemnity organizations under various names, be it therefore

"Resolved, that the Medical Society of the State of New York maintain its vigorous opposition to all types of compulsory and voluntary health insurance measures by whatever name known unless a decision to the contrary is reached only in the House of Delegates meeting in either regular or special session."

Your Reference Committee on New Business B is in sympathy with the restatement of the resolution of the established policy of the Medical Society of the State of New York in opposing the enactment of any compulsory health insurance law but inasmuch as this resolution embodies the repetition of the established policy and includes matter that your Committee believes unnecessary and in a form not exactly indicative of the Society's recorded position, your Reference Committee disapproves this resolution and I move that it be not adopted.

The motion was seconded.

VICE-SPEAKER FLYNN An affirmative vote would disapprove of the resolution.

The question was called for, and the motion was put to a vote, and the recommendation of the Reference Committee was adopted

DR. BRENNAN That is all sir

With the amendments made here in the House on each of the items presented and subject to the one item which was recommitted the adoption of the Report of Reference Committee on New Business B as a whole is hereby moved by me.

The motion was seconded, and as there was no discussion it was put to a vote, and carried.

54 Report of Reference Committee on New Business C on Minimum Fee Schedule for Contract Practice

Section 29

DR. CLARENCE G BANDLER, New York Reference Committee on New Business C reporting on the Resolution submitted by the Medical Society of the County of Queens, which is as follows

"WHEREAS, there is an apparent increase in lodge, group and contract practice, and

"WHEREAS, there are springing up throughout the Metropolitan Area insurance groups purporting to furnish medical care on a voluntary health insurance basis and

"WHEREAS these groups and lodges are beginning to manifest the underbidding and solicitation so undesirable in this type of practice, and

"WHEREAS there is no set standard of fees for this work, and

"WHEREAS, the Commissioner of Labor has recently decreed that the fee schedule governing compensation practice in the Metropolitan Area be made State wide,

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

The Woman's Auxiliary to the Medical Society of the State of New York reports progress during the second year of its existence

We feel it a privilege and an honor to be members of an auxiliary to the New York State Medical Society, an organization composed of over 16,000 men who have given so much of their time and expended large sums of money in becoming educated that they may devote their lives to alleviate and cure the sufferings of humanity

In our efforts to further the aims of these men in the pursuit of their calling, we function in five ways social, philanthropic, legislative, educational, and public relations

If for no other reason than the first, the social contact brought about through our organization warrants our existence

Some philanthropic work has been done. Money has been raised in various ways to purchase medical books for medical society libraries and to assist in the upkeep of county society buildings. Money was raised by one county auxiliary to equip an infirmary for Boy Scouts, the building itself having been donated by the county society. But, to look into the future, we see philanthropy on a greater scale, perhaps a student loan fund, and an annual contribution to the Physicians' Home, an establishment where worthy members of the profession will be offered comfort and companionship, together with our full esteem

Our legislative work has been outstanding, because of the ultimate good accomplished. Upon request of the State Medical Society, there has been complete cooperation from every auxiliary

Our educational program, not only covering medical topics, but various subjects, has been valuable as well as interesting

Through our public relations function we have had the unique opportunity to fulfill our obligation to the profession and to society. We have given unlimited assistance to our county medical societies in publicizing the different programs and campaigns

which they have put on for the benefit of the public. We have secured speaking engagements for members of the speakers bureau of county medical societies before desired audiences

During the week of the New York State Fair, one auxiliary, in cooperation with its county society, had an exhibit on maternal welfare. 10,000 pamphlets on Standards of Prenatal care were personally distributed to women, many of whom could not otherwise have been reached. Seventy-five requests were received for additional information

Another county auxiliary had an exhibit on syphilis at a county fair

In such manner we hope to minimize the penalties of ignorance

Our State Hygeia Chairman, and her corresponding county chairmen, have devoted much time and energy to furthering the sale of the A M A publication for the laity. During the year *Hygeia* was placed in many schools and public libraries, the subscriptions in most cases being donated.

Three new county auxiliaries have been organized and one has resumed activities, making a total of sixteen out of a possible sixty-one. Our membership, while on record in the A M A Auxiliary as being slightly over 700, is, in reality, over 1,100, the first fiscal years of the newly organized counties not having been completed and therefore their membership dues to state and national not having been paid

Our desire is for a 100% organization such as the State of Utah reported at the National Executive Board meeting in Chicago last November. But, because of our infancy, our potential usefulness is not yet fully realized by the profession, by the public or perhaps by ourselves

There is much to be done, but the New York State Auxiliary anticipates presenting a report of greater progress at the next annual A M A Auxiliary convention

Respectfully submitted,
MRS FRANCIS R. IRVING
Immediate Past President

Fan Dancer Doctor, I want you to vaccinate me where the scar won't show

Doctor Okay Stick out your tongue.
—Doctor's Quarterly

and all such programs shall be administered, controlled, evaluated and operated under the responsibility of the organized medical profession, entirely free of political interference or lay dictation.

"4 We submit that wherever any such plan of mutual or public assistance may be proposed, the approval and cooperation of the organized medical profession should be anticipated, provided that this clear and logical division of function and responsibility between the economic and the professional aspects is observed and properly implemented in the legislation under which the plan is to be established, or the articles of agreement under which the parties to the program propose to operate, and provided further that such plan is adapted to the local conditions of the community to which it is intended to be applied."

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The motion was seconded.

VICE SPEAKER FLYNN It has been regularly moved and seconded that the resolution be not adopted. An affirmative vote will disprove the resolution.

The question being called for the motion was put to a vote, and the recommendation of the Committee adopted.

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Section 12

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"WHEREAS, the Commissioner of Labor has recently decreed that the fee schedule governing compensation practice in the Metropolitan Area be made State wide,

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DR BRENNAN Answering Dr Rooney's question, we are simply subscribing to what the main part of the resolution states, that it is desirable and necessary that the Chairman of the Insurance Committee be, so far as possible, continued in office from year to year. There is nothing mandatory or dictatorial about this resolution

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Dr. Rooney's point is well taken, and further than that the Constitution says that the Chairmen of the different Committees must be members of the Council. The Treasurer is a member of the Council, and that will take care of that point therefore.

PRESIDENT-ELECT GROAT I am not worrying about the interference with any of my prerogatives as President, but I think this is a dangerous precedent to establish, the giving of specific instructions of this kind as to who shall or shall not be the Chairman of a Committee of the Council. So far as continuity is concerned, members of the Council hold for three years. They are re-elected only after a three-year period, assuming they are re-elected, whereas the Treasurer is elected every year. Assuming that he is re-elected every year, he would have to be re-elected six times to the other man's twice.

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MALPRACTICE INSURANCE

Group Plan of the Medical Society of the State of New York

January 1, 1939 will be the expiration date of the first three years' operation of the Medical Society of the State of New York's Group Plan of malpractice insurance under the mutually controlled cost plus plan in force between the Society and the Yorkshire Indemnity Company.

Based on an actuarial study of the experience already available, an agreement has been made whereby a number of beneficial changes will be incorporated in a new Master Policy to be issued, effective on and after January 1, 1939.

The new Master Policy will broaden the coverage now in force by including full and complete coverage, without additional premium charge, protecting the Assured on account of all medical acts committed or alleged to have been committed by all temporary and permanent medical assistants, providing said assistants are members of the Society and individually insured under the Society's Group Plan.

In addition it will eliminate any additional premium charge at present made with respect to the independent acts on behalf of the Assured for both X-ray and Pathological Technicians.

A revision of the majority of the excess limit rates has also been approved which will offer to the members an opportunity to subscribe to larger limits than they at present carry at approximately the same annual premium rate they are now paying. This modification will also apply to the excess X-ray Therapy rates.

At no time in the past has the Society's Group Plan of malpractice insurance been placed on such a sound financial basis. This has been made possible through the solidarity of support given to it by the members and through careful actuarial study and understanding of the financial operation by the Insurance Committee and the Insurance Representative.

Too much stress cannot be given to the importance of this large and important

undertaking. Few members realize the insurance importance of having a definite agreement with the Insurance Company, whereby the Assured's own specialized Medical Legal Counsel is permitted to unrestrictedly defend his claim or suit. It is the only legal defense arrangement ever agreed to in which an Insurance Company waived its own legal department in favor of the Assured's own personal Legal Counsel.

The Counsel of the Society is recognized as the leading Medical Legal Counsel in the country and no member can afford to jeopardize his professional standing in his community.

The Society has built solidly, through its Insurance Group Plan, to meet the ever increasing hazards to its members against the time when the ever dreaded filing of a suit or claim against them occur. For eighteen years the Society has held together the malpractice situation in this State. Had it not been planned and carefully controlled, members today would be forced to buy their insurance from such companies as cared to take them. They would have had to accept such policy forms as the various companies cared to issue, accept company legal defense and, furthermore, pay such rates as the companies wished to charge which would in turn produce such profit as the company desired to make.

Repeatedly have members, who unfortunately purchased malpractice insurance protection outside of the Society's Group Plan, expressed regret when faced with the fact they had to actually undertake medical legal education of their defense attorneys in preparation and defense of their suit.

The Legal Counsel and the Insurance Representative of the Society are available at all times to advise or counsel with the members on all legal or insurance requirements, and the Society earnestly urges all members to avail themselves of this service.

France is trying hard to increase the population by giving cash subsidies for large families but we are told by the *Concours Médical* (Paris) that the medical profession in France has not waited to receive government aid but has formed an independent organization which already in-

cludes sixty-one medical families of more than ten children each. The majority of the fathers are physicians in country districts or small towns. One physician is listed as having seventeen, another sixteen and a third fifteen children. Will physicians in other lands accept this challenge?

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In such manner we hope to minimize the penalties of ignorance

Our State Hygeia Chairman, and her corresponding county chairmen, have devoted much time and energy to furthering the sale of the A M A publication for the laity During the year *Hygeia* was placed in many schools and public libraries, the subscriptions in most cases being donated.

Three new county auxiliaries have been organized and one has resumed activities, making a total of sixteen out of a possible sixty-one Our membership, while on record in the A M A Auxiliary as being slightly over 700, is, in reality, over 1,100, the first fiscal years of the newly organized counties not having been completed and therefore their membership dues to state and national not having been paid

Our desire is for a 100% organization such as the State of Utah reported at the National Executive Board meeting in Chicago last November But, because of our infancy, our potential usefulness is not yet fully realized by the profession, by the public or perhaps by ourselves

There is much to be done, but the New York State Auxiliary anticipates presenting a report of greater progress at the next annual A M A Auxiliary convention

Respectfully submitted,

MRS FRANCIS R IRVING

Immediate Past President

Fan Dancer Doctor, I want you to vaccinate me where the scar won't show

Doctor Okay Stick out your tongue
—*Doctor's Quarterly*

Public Health News

Registration Then, Now and in the Future

J ROSSLYN EARP, L.R.C.P., Dr PH
New York State Department of Health

In 1849, when the legislature of the Commonwealth of Massachusetts resolved upon a Sanitary Survey of the State and appointed three persons to be Commissioners, they also made provision for "a sum not exceeding fifty dollars, to purchase books on the subject." The Commissioners including Lemuel Shattuck, made their classical report in 1850 and in it they included a list of fifty or more American, English and French publications which they believed should be acquired for the libraries of General and Local Boards of Health. They acknowledge generous gifts from the government of France but on the other hand they note that 'it usually costs 30 to 33 cents per shilling sterling to import books from England and about the same per franc from France.'

Looking through this interesting list one is struck by the large place which is taken by statistical reports of the previous ten years. It is but one indication of the Commissioners' attitude. Another is the effective use they have made of statistical data in the survey itself. Finally we have their plain avowal. Writing of the annual reports of the English Registrar General of which there were at that time nine they say "These reports contain a vast fund of information, of the greatest value, relating to the life the health and the welfare of man." The "Act for the Registration of Births Marriages and Deaths in England and Wales" (1836) was they say "the most important sanitary measure ever adopted in England, and it has been the foundation of nearly all others. Without it they would have been of comparatively little value."

Have we the same respect as our forebears had for the knowledge made available by registration of births and deaths? If so we must be interested in the meeting held in Albany June 3 and 4 of the Northeastern Division of American Association of State Registration Executives. In opening the meeting Dr J V DePorte pointed out that the common interest of registrars in the Association which brings together executives from Mexico, Canada and Cuba as well as the United States is to work for uniform-

ity of statistics. The most potent single event which led to the adoption of satisfactory legislation by all states was the formulation of the so-called Model Law, which expressed in legal language the expert judgment of the American Public Health Association as formulated at its annual meeting in Buffalo in 1900. The adoption of the Model Law by the states was fostered by the Census Bureau following the establishment of the Bureau on a permanent basis in 1902. Many private organizations, particularly the American Medical Association the American Bar Association, and certain insurance companies assisted greatly in this work. Dr DePorte introduced Dr John Collinson Assistant Chief Statistician for Vital Statistics of the Census Bureau, who discussed proposed modifications in the standard form of birth and death certificates which were prepared with the advice of hundreds of experts throughout the country. The intent of these modifications is to make the certificates generally more serviceable and at the same time to simplify insofar as possible, the task placed by the law particularly upon physicians for furnishing information called for by the certificates. It is hoped that the amended forms will be put into use in the course of the coming year. Experience has shown that some of the items on the certificates must be reworded in order that the desired information be secured. For example, Dr Yerushalmy during a study of neonatal deaths suspected that when a birth certificate is filled out after the death of the new baby the physician more often than not will include this baby in the category "children born alive now dead," although the birth certificate does specify that this phrase refers to children dead at the "time of present birth." His suspicion was confirmed by special inquiry in seven hundred cases which proved that more than sixty per cent of physicians followed this procedure. He proposes in order to clarify the certificate that the question on obstetrical history be changed so that it refers only to *previous* pregnancies.

Dr Collinson explained that the meeting in Albany is only the first of a series of

regional meetings and that all the suggestions received at these regional meetings will be collated by the Division of Vital Statistics of the Census Bureau and guide the activities of that division during the coming year.

One of the more modern trends in registration is to define more accurately the residence of the decedent or of the mother at the time of death or of birth, and also the usual residence of the individual. The difficulties in securing accuracy in these respects are greater than would at first sight appear. Even such a simple matter as deciding whether the event takes place within a city's limits demands a knowledge of geography which every doctor cannot be expected to possess. The registrar of the city of Rochester told us that many hours are consumed in determining the proper allocation of certificates received in their office. One of our district health directors, Dr Archibald S. Dean, has sought to give aid to the officials concerned by preparing a nine-page "Tonawanda city, Tonawanda town, and Tonawanda village street guide."

This street guide has been supplied to all the registration officials of the neighborhood. One wonders whether it might not also be supplied to physicians who sign the certificate in the first place, or whether they would consider it an imposition to expect them to verify the district in which the birth or death is supposed to have taken place.

Some discussion was devoted to the questions which elucidate the length of gestation in the case of prematurely born infants. Some confusion is caused by a tendency to report lunar rather than calendar months. It was suggested that since we are likely soon to have a more accurate knowledge of the date of ovulation and therefore of conception, the period should be measured in weeks. However, Dr Collinson objected that the colored midwives of the South are quite incapable of calculating the number of weeks of gestation at the present time. That is one of the changes which will have to be saved for a future revision.

Requirements of Premarital Examination Law—New York City Procedure

The premarital examination law is now in effect. This law requires a physician's examination, including serological test for syphilis, of all applicants for a marriage license not more than twenty days prior to the application. The following procedures have been put into effect by the Health Department to assist physicians in complying with the requirements of the law.

1 The blood for the serological test drawn by the examining physician may be sent to either the Health Department laboratories or to private laboratories.

(a) When the specimen is sent to the Health Department Laboratory the usual blank requesting a serologic test has been slightly modified by adding a question as to the purpose of the test. If blanks at present in possession of the physician do not have this question, the words "premarital examination" should be written in prominently at the bottom of the blank, just above the date line.

(b) When specimens are sent to private laboratories, the purpose of examination should be similarly stated.

2 The laboratory, whether Health Department or private laboratory, will return to the examining physician on completion of the tests two reports—one a confidential report with the results of the test thereon, (small blank), and the other a statement that a test has been made, (large blank).

(a) The large blank consists of an upper and lower portion. The upper portion will be received by the physician, already filled in by the director of the laboratory, either Health Department or private, attesting to the fact that an examination of the blood has been made of the applicant for marriage, but not stating the result.

The lower portion must be filled in by the examining physician. This portion also has a line for the full signature of the applicant. On completion of this portion of the blank, it is given to the applicant, who files it with the clerk issuing the marriage license.

(b) The confidential report (small blank), giving the result of the serological examination, if made by a private laboratory, must be filed with the Bureau of Social Hygiene, Department of Health, 125 Worth Street, New York City. When the test is made by the Health Department laboratory this is unnecessary, since a copy of the report is already on file.

After fifteen years of litigation in state and federal courts, the case against fraudulent substitutes for milk now appears to be definitely closed. The Supreme Court of the United States has found, as the Federal Filled Milk Act itself declares, that the use

of filled milk as a substitute for pure milk is generally injurious to health and is a fraud on the public. In a sweeping 6 to 1 decision the United States Supreme Court on April 25 held the Federal Filled Milk Act of 1923 constitutional.

Medical News

Albany County

DR. FOSTER KENNEDY, Professor of Neurology at Cornell University Medical College, addressed the Medical Society of the County of Albany on May 25 on the nature of the development of the nervous system and of the glandular and chemical authorities controlling human behavior

Herkimer County

A LECTURE WAS GIVEN BEFORE the Medical Society of the County of Herkimer on May 19, on "Circulatory Disturbances in Metabolic Diseases" by Dr. Clarence E. de la Chapelle, Chairman of the Department of Medicine, New York University College of Medicine.

Jefferson County

DR. NATHAN P. SEARS was the principal speaker at the meeting of the Medical Society of Jefferson County on May 12.

Kings County

DR. ALFRED L. L. BELL lectured on "X Ray Therapy in Fluoroscopy" before 400 members of the Kings County Medical Society on May 17. A motion picture on practical uses of cine fluorography was shown by Dr. William H. Stewart and Dr. Francis H. Chiselin. Dr. John B. D'Albora, president of the society, presided

Monroe County

THE MONROE COUNTY Medical Society conducted a forum session on recent trends in medical service following an address by Dr. Arthur C. Christie of Washington D. C., at a meeting on May 17 in the Academy of Medicine in Rochester. The doctors discussed medical service in hospital insurance contracts, non profit medical expense indemnity insurance and the workmen's compensation medical fee schedule.

Niagara County

DR. RAYMOND S. BARRY was elected president of the Niagara Falls Academy of Medicine at a meeting on May 17 in Mount St. Mary's hospital. Other officers elected are Dr. Frederick Lowe, vice-president and Dr. Russell Wixson, secretary and treasurer

Orange County

ASSERTING THAT COST OF administration exceeds cost of medical care given persons on relief, the Orange County Medical Society has asked cooperation of the Board of Supervisors in obtaining an investigation of the administrative costs of relief and medical aid for the poor. The communication was referred to the Board's committee on public welfare.

MIDDLETOWN ELKS HAVE purchased an iron lung for Horton Memorial Hospital for use of persons in central Orange County. The lung will be available for use at only a slight charge for operating expenses.

Otsego County

"THE ONLY THING WE LAWYERS know about a case medically is what we get from the doctors, but any lawyer who doesn't make it his business to know all there is to know medically and otherwise about a case should never have been retained in the first place" declared the Hon. David F. Lee of Binghamton addressing a joint meeting of the Otsego county Bar and Medical societies at the Cooper Inn in Cooperstown on April 29.

Judge Lee spoke on the subject, "The Doctor as a Medical Witness," and gave many interesting reminiscences of his experiences in the Courts. He also advised both associations to get rid of their "bad" members. "They do their respective professions a great deal of harm," he remarked in closing.

Queens County

DR. AARON BROWN of Bellevue Hospital discussed "Clinical Allergy" before members of the Medical Society of Queens on May 20.

Westchester County

DOCTORS OF WESTCHESTER and guests met on May 24 for the annual dinner of the County Medical Society at Schmidt's Farm, Hartsdale preceded by a golf tournament and field sports at the Scarsdale Golf Club.

Dr. George C. Adle was general chairman of the dinner committee. A golf tournament began at 1.30. Softball and horse-shoe pitching were played. The group dined at 6.30.

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Revocation of Physician's License Upon Conviction of Crime Involving Moral Turpitude

Some months ago in these columns we made reference to a judicial interpretation of the expression "moral turpitude." Subsequent to the said article the highest Court in one of the Western States has been called upon to pass upon the question of the sort of a crime which when committed by a practicing physician involved moral turpitude*.

It seems that Dr. C, who instituted the case, had been convicted in the United States District Court in criminal proceedings, and had been sentenced to a term of imprisonment for a period of one year and one day. Dr. C was regularly licensed to practice medicine and surgery and had held a position as medical examiner for the United States Veterans Bureau. He had been charged in an indictment containing twelve separate counts with having unlawfully and wilfully presented to the Chief Medical Officer for the Veterans Bureau of the district for approval and payment a number of false and fraudulent accounts and claims against the government with intent to defraud the United States of America. He had pleaded guilty to the charges, and received the sentence already mentioned.

A certified copy of the judgment of conviction was sent to the State department of law enforcement, and its commissioner gave notice to Dr. C of a hearing at which he should show cause why his license should not be revoked because of his conviction of the crime in question. Dr. C appeared at the hearing, and contended that his license should not be revoked, being a valuable property right, which could not be taken away except under the exercise of the police power. He contended that the crime did not in any way show that he was in any way unfit to be entrusted with the powers and duties of a practitioner of medicine.

The commissioner made an order revoking the doctor's license to practice medicine and surgery, and he applied to the courts for a writ of review. The lower Court affirmed the action taken by the commissioner and from there the matter was carried upon appeal to the highest Court of the State.

The State statute relating to the licensing of physicians, contained the following provision:

Every license heretofore or hereafter issued under this chapter shall be subject to revocation or suspension by the department of law enforcement (hereinafter referred to as the department) upon any of the following grounds:

1. Conviction of a felony in a state or federal court, or conviction of any crime involving moral turpitude.

The contentions of Dr. C before the Appellate Court were in the main as previously summarized. He also contended that the commissioner had abused his discretion in revoking instead of merely suspending his right as a physician to practice.

Although the crime of which Dr. C had been convicted was characterized as being a felony, the Appellate Court, in affirming the judgment revoking the license, placed its ruling squarely upon the grounds that the physician had been guilty of a crime evincing moral turpitude and said in the course of its opinion:

The right to practice a profession has been held in this state not a property right.

However, the privilege to practice a profession is a valuable one which may only be revoked by the proper exercise of the police power.

Appellant argues he has been convicted of nothing the doing of which disqualifies him from the proper and successful practice of his profession of medicine and surgery. The statute, section 53-2107 (above quoted) makes conviction of a physician or surgeon of a felony, in a state or federal court, or conviction of any crime involving moral turpitude, ground for revoking or suspending his license. He contends that, to construe the statute to mean a license may be revoked because its possessor has been convicted of a crime, the commission of which does not involve moral turpitude would render it unconstitutional. This contention is not available to appellant.

The crimes of which he pleaded guilty, consisted of a series of fake claims, certified by him to be true and just, which he made and used for the purpose of cheating and defrauding the government of the United States. They involved moral turpitude. These fraudulent claims grew out of his employment by the government to treat disabled veterans in his professional capacity. They were acts of dishonesty and, although a dishonest man may be skilled in the practice of the profession of medicine and sur-

* *Craft v. Balderston*, 78 Pac. (2nd) 122.

gery, to allow such as he to practice that honored profession would bring disgrace upon it and would expose the public to the misconduct of the criminally inclined. It is well within the police power of the state to prevent this, and by the enactment of section 53-2107, its prevention has been provided for.

Appellant contends his license should not have been revoked that at most it should have been suspended. His conduct, as disclosed by this record, does not justify the contention.

Death Following Amputation Of Leg

A physician specializing in surgery was called to the scene of an accident which had just occurred when someone accidentally had backed a five ton truck against a young man, throwing him to the ground, the double tired rear wheel completely passing over his right thigh. The doctor examined the patient and found a compound, comminuted, traumatic amputation of the right thigh with extreme crushing for a length of fourteen inches the leg literally hanging by a shred. He found the patient in profound shock suffering from severe hemorrhage. He also suffered from lacerations of the scalp and numerous contusions and abrasions over the entire body, large hematomas, contusions and abrasions of the left thigh, possible fracture of the skull, and concussion of the brain.

The doctor undertook to administer first aid, applying a tourniquet and pressure bandage and splint to the right thigh and caused the patient to be removed immediately thereafter by stretcher to an ambulance and taken to a nearby hospital. The

patient was at the time in a moribund condition. The doctor immediately supervised treatment for shock, administering tetanus antitoxin and glucose infusion with external heat. The patient was promptly typed and cross matched for transfusion and taken to the operating room. Bleeding of the right thigh continued and bleeders were ligated, and at the same time the amputation of the leg was completed by trimming the thigh. The patient's condition was temporarily improved and a donor for a blood transfusion was sought and the blood of the patient's brother having been found suitable, a transfusion was administered. During the transfusion the patient expired. Death occurred about five hours after the doctor was first called to attend him and he had remained in continuous attendance upon him during the entire period of time.

An action was brought against the surgeon by an administrator who was appointed for the deceased patient in which the claim was made that the doctor's malpractice caused the death of the patient. The case came on for trial before a judge and jury and the plaintiff proceeded on the theory that the defendant doctor had been negligent in failing to take the patient to a hospital where blood donors were readily available and it was further claimed that the doctor had failed to administer a blood transfusion immediately or within a reasonable time, and that said fact was the competent, producing cause of the patient's death. At the conclusion of the testimony introduced on behalf of the plaintiff on motion of defendant's counsel the complaint was dismissed.

SCIENTIFIC EXHIBIT AWARDS

1938 Annual Meeting

A special subcommittee reported to the Committee on Scientific Exhibits of the State Medical Society its decision on awards as follows:

PRIZE WINNERS

First to Space B 34 J. K. Cline, M.D. and Norman Jolliffe, M.D. "Chemical and Clinical Studies of Vitamin B"—As a piece of research work, this seems to establish a definite building stone for extending knowledge in a study of vitamins.

Second to Space C 38. Edward F. Hartung, M.D., John D. Currence, M.D., and Miss Margaret Straub Neil "Social Aspects of Chronic Rheumatism"—This particular exhibit was very well done and tended to focus the attention of the profession gen-

erally upon the problem of chronic arthritis.

Third to Space A-18. Mather Cleveland, M.D. and David M. Bosworth, M.D. "Tuberculosis of Bones and Joints—Diagnosis and Complications."

Honorable Mention

First to Space C 49. Sigmund Epstein, M.D. "Transportation of the Sick and Wounded in History and Art."

Second to Space B-50. Division of Syphilis Control, State Department of Health, Albany. "Syphilis Control."

Third to Space B-25. R. Franklin Carter, M.D., F. Howard Westcott, M.D., Fred W. Graef, M.D. and James F. Henegan, D.D.S. "Ten Year Medical Survey, The New York Times."

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Diabetes Insipidus and the Neuro-Hormonal Control of Water Balance. A Contribution to the Structure and Function of the Hypothalamico-Hypophyseal System. By Charles Fisher, Ph.D., W. R. Ingram, Ph.D., and S. W. Ranson, M.D. Quarto of 212 pages, illustrated. Ann Arbor, Edwards Brothers, 1938. Cloth, \$5.00.

The Heart in Pregnancy. By Julius Jensen, Ph.D. Quarto of 371 pages, illustrated. St. Louis, The V. C. Mosby Company, 1938. Cloth, \$5.50.

A Challenge to Sex Censors. By Theodore Schroeder. Octavo of 157 pages. New York City, The Author, 1938. Paper.

A Text-book of Pathology. An Introduction to Medicine. By William Boyd, M.D. Third edition, thoroughly revised. Octavo of 1064 pages, illustrated. Philadelphia, Lea & Febiger, 1938. Cloth, \$10.00.

Hemorrhoids. By Marion C. Pruitt, M.D. Quarto of 170 pages, illustrated. St. Louis, The C. V. Mosby Company, 1938. Cloth, \$4.00.

REVIEWED

Macleod's Physiology in Modern Medicine. Edited by Philip Bard. Eighth edition. Octavo of 1051 pages, illustrated. St. Louis, The C. V. Mosby Company, 1938. Cloth, \$8.50.

The eighth edition of this standard text-book of physiology under the editorship of Dr. Bard represents a complete revision of the previous editions. It is entirely reorganized, mostly rewritten, and represents an adequate survey of modern physiology.

This book is in no sense an applied physiology but aims to supply the student with fundamental knowledge. Nevertheless, much material is included which is of immediate and practical value to the physician.

Dr. Bard is to be congratulated upon his excellent presentation of physiology.

G. B. RAY

Anatomy and Physiology of Physical Training. By Major R. W. Galloway, M.B. Duodecimo of 182 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$2.50.

Although many works on a similar subject have come from British authors during the past few years, this one fills a place heretofore not covered by others.

A resume of this book will give the reasons for movements of the muscular on the skeletal system in certain groups and not merely from the standpoint of going through the arc of movement.

The author endeavors to set forth the individual and group muscles entering into the major exercises carried out by upper

and lower extremities, head, neck and trunk. For example in the movement of a certain part the muscle or muscles involved are named, then their origin given, their insertion, and their action or physiology.

The book can well be recommended to those engaged in the art of physical education, and might serve as a good guide to the orthopedist.

JOSEPH I. NEVINS

Diathermy. Including Diathermotherapy and Other Forms of Medical and Surgical Electrothermic Treatment. By Elkin P. Cumberbatch, M.A. Third edition. Octavo of 576 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$6.00.

In a volume devoted exclusively to one phase of physical therapy it is possible to present the subject in minute detail. The author has taken full advantage of this, and has achieved a thorough presentation of the use of diathermy in medicine. Essential physics of the high frequency current and its generation are clearly described. A complete account of the use of both medical and surgical diathermy in the specialties is included. Apparently there is now less divergence between physical therapy practice here and abroad. The chapters on short wave therapy are excellent. The book is well written and clearly printed and illustrated, and will be of value both to the student and the practitioner of physical therapy.

JEROME WEISS

ORDERING BOOKS

As a service to our readers, books listed in this issue or any other medical book in print may be ordered through T. H. McKenna, Inc., 878 Lexington Avenue, New York City. Phone BUtterfield 8-6603.

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EFFECTS OF INSULIN, METRAZOL, AND CAMPHOR CONVULSIONS ON BRAIN METABOLISM

S BERNARD WORTIS, M D, *New York City*

From the Department of Pathology of Bellevue Hospital Laboratory of Experimental Neurology

We have been seeing a flowering of interest in chemical and electrical studies of the nervous system. Recent work on the effects of vitamins, hormones, enzymes, and drugs on brain tissue metabolism has been increasingly apparent in neurologic and psychiatric literature, especially since the introduction of pharmacologic methods for the treatment of mental disorders. I shall attempt to give you a brief review of our knowledge of brain metabolism and indicate some of the effects of insulin, metrazol, and camphor on brain metabolism.

The central nervous system is known to be especially sensitive to changes in oxygen tension—and many abnormal mental symptoms appear in states of anoxemia, or on exposure to atmospheres of low oxygen tension. Humans subjected to insufficient oxygen supply to the brain show evidence of disturbed cortical function as shown by writing word association tests, speech disturbance, psychic disturbances, and lowered auditory sensitivity. Severe and prolonged reduction of brain oxidations may produce permanent interference with finer discriminations as measured by conditioned reflexes, coma or convulsive seizures. It requires greater oxygen deficiency to disturb functions of the brain stem than to impair cortical function.

The processes of tissue metabolism are

not fundamentally different in peripheral and central nervous tissues, but there are indications of a quantitative difference in the oxidative processes of these nervous tissues. It has been known for many years that brain tissue utilizes a considerable amount of oxygen and that carbohydrate is the most important foodstuff concerned in brain metabolism. Glucose is the normal fuel oxidized by brain but lactic acid is, also, easily burned and possibly galactose, fructose, glutamic and succinic acids can be utilized in small quantities.^{1,2}

Experimental study of brain metabolism has been accomplished mainly by three methods

1. The Barcroft Warburg method (or one of its recent modifications) wherein small amounts of accurately weighed living brain tissue are kept under nearly physiological conditions and the gaseous metabolism, i.e., the oxygen consumption and carbon dioxide production are accurately measured.

2. The method of simultaneous arterial and venous puncture with analysis of the blood leaving and entering the organ. The oxygen and carbon dioxide content of the blood is determined by the method of gas analysis described by Van Slyke and Neill. For studies of brain metabolism samples are taken from the internal carotid artery and the deep jugular vein.

By both methods, one may measure the oxygen utilization and the respiratory

*Read at the Annual Meeting of the Medical Society of the State of New York
New York City May 12 1938*

quotient (RQ) of the tissue. From the known chemical compositions of the basic foodstuffs one can calculate the characteristic respiratory quotient (RQ) for carbohydrate or lactic acid to be 1.0, protein to be 0.82, and fat 0.70.

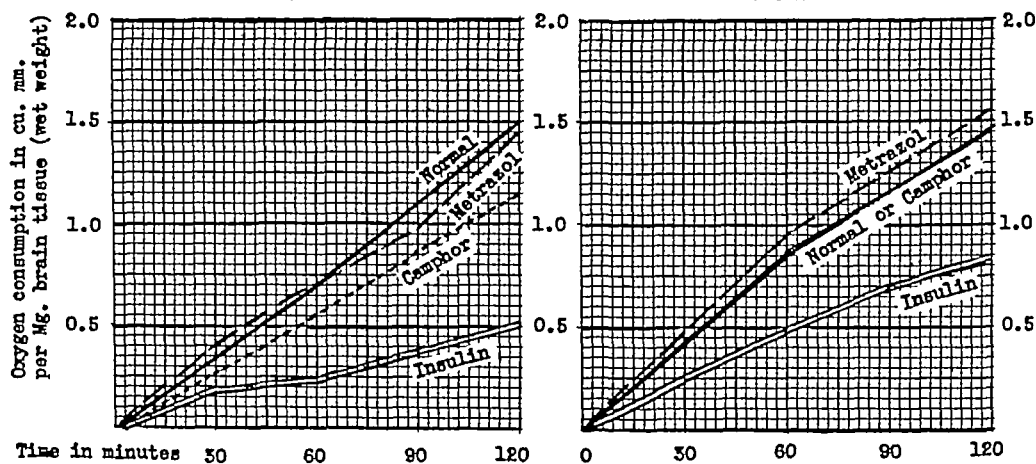
3 Furthermore by placing normal brain, spinal cord or meningeal tissue in physiological solutions (Ringer phosphate buffered to pH 7.4 or bicarbonate buffered solutions or blood serum or plasma) containing various foodstuffs, and measuring by exact chemical quantitative methods, the concentration of such foodstuffs in the solution at the

The brain tissue of normal warm blooded animals so far studied (human, monkey, cat, rat, mouse) yield a respiratory quotient of unity, indicating that brain tissue normally oxidizes carbohydrate. As has already been stated, other substances can be oxidized by brain but all other oxidizable substances exist in the blood (under normal conditions) in very small concentrations. It is therefore obvious that carbohydrate must be the brain's chief fuel. In the normal and in the diabetic animal, both glucose and lac-

CHART I—EFFECT OF INSULIN, METRAZOL, AND CAMPHOR ON OXYGEN CONSUMPTION OF BRAIN TISSUE OF ANIMALS WITH CONVULSIONS

CAT ♂

WHITE RAT ♂



Brain Tissue in plain Ringer's phosphate solution pH 7.4 at 37.5° C

beginning and end of an accurately timed experiment, one can determine the ability (and rate) of normal brain to utilize such foodstuffs. In addition, by analyzing (for sugar, lactic acid or other substances) samples of blood entering and leaving the brain one can determine the ability of the brain to take up foodstuffs from the blood or add different substances to the blood.

Each of the methods enumerated has its particular technical advantages and its definite limitations. The original work reported in this paper was mostly done by the Barcroft-Warburg technic, although certain quantitative estimations were made by standardized accredited chemical methods. Normal brain tissue of the human, monkey, cat, rat, and mouse were used. For exact description of the technic the reader is referred to earlier publications.^{3, 7}

tic acid are taken up by the brain from the blood. These substances are not converted to glycogen by the brain, and furthermore glycogen is not stored by the brain. The oxygen uptake of the brain of normal animals after insulin convulsions is appreciably smaller than normal. This effect is due to the fact that the blood sugar (and also the amount of sugar in the brain) is very much diminished. The brain utilizes approximately ten per cent of the oxygen taken in by the animal.⁸

Previous work⁷ has shown that the brain tissue of smaller animals has a greater oxygen uptake per milligram of tissue per hour than that of larger animals. It has also been shown that in animals of the same species the brain tissue of the younger animal always has a greater oxygen consumption per milli-

gram of tissue than the adult. This avidity for oxygen characteristic of young brain tissue may explain the common occurrence of convulsive seizures during childhood when toxic factors probably more easily impair brain oxidations.

The oxygen consumption of gray matter is greater than that of the white substance of the brain. This has also been demonstrated by Holmes² who has shown that the distributions of certain enzymes and catalysts like indophenol oxidase and of cytochrome run roughly parallel both to each other and to the rate of oxygen consumption of different types of nervous tissue. Furthermore different parts of the brain require different amounts of oxygen. This is in part reflected by the angio architecture of the different brain areas. Moreover metabolic studies of isolated brain tissue indicate that the oxygen utilization in order of oxygen requirement is cerebellar cortex, cerebral cortex, corpus striatum, cornu ammonis, thalamus, globus pallidus, and finally the medulla requires the smallest amount of oxygen.²

Effects of Some Drugs

In 1934 I reported on the effects of some drugs on brain oxidations.⁴ At that time it was stated that insulin diminishes the oxygen consumption of brain tissue, and this cellular anoxic effect may possibly account for the clinical symptomatology—confusion, excitement and convulsions—that one sees in hyperinsulinism. At the same time the effects of other drugs were reported.

The problem of the action of narcotics and other substances on brain tissue has received much attention by Warburg, Quastel,⁶ Holmes,² Gerard,¹⁰ Emerson and others. There is no good evidence indicating that the brain is not a homogeneous organ, metabolically any more than it is homogeneous in anatomical chemical or functional structure. Various chemicals very likely have different actions on, or affinities to specific brain areas.

The remarkable work of Warburg has shown that there are certain intracellular respiratory enzymes which are potent factors in bringing oxygen into a state of availability or reactivity. Enzymes are necessary for the activation of oxygen

and also required to activate substrates, whose combustion represents the respiration of the brain cell.

The dehydrogenases are examples of such enzymes. These dehydrogenases can be selectively poisoned (inactivated) by specific drugs. Narcotics such as the higher alcohols and ethyl urethane can inhibit dehydrogenase activity. Over twenty enzymes have been described in brain tissue but their exact function in brain cellular metabolism is not yet known—furthermore, practically nothing is known of the mental or behavioristic evidences of dysfunction of such enzymes.

In addition, brain cells contain certain biochemical systems not sensitive to cyanide and in which oxygen plays the part of a hydrogen acceptor.

Quastel and Wheatley⁶ have shown that "narcotics in general inhibit the oxidation by brain of glucose, sodium lactate and sodium pyruvate, but do not inhibit the oxidation of sodium succinate and p-phenylenediamine. They also believe that of 'narcotics belonging to the same chemical type, those with the greater hypnotic activity have the greater inhibitive action on brain oxidations.' In a later paper these workers⁹ give evidence to show that this inhibition of the oxygen consumption of brain tissue in the presence of glucose, which is brought about by narcotics is very nearly completely reversible if the tissue is washed in glucose-Ringer phosphate solution—even after being exposed to the narcotic for two and a half hours. The inhibition of oxidations and cellular function of hyoscine, mescaline and B-phenylethylamine is also reversible whereas that induced by indole is not reversible. Most narcotics have one common property, that of inhibiting, at low concentrations the oxidation of substances essential in the metabolism of carbohydrates e.g., glucose, lactic acid, and pyruvic acid.

Cocaine and sodium cyanide depress the respiratory quotient and oxygen uptake of brain tissue.⁴ Sodium bromide although it does not effect the respiratory quotient of brain tissue appears to depress the ability of brain tissue to oxidize foodstuffs as rapidly as under normal conditions. Dameshek, Myerson, and Loman¹¹ have shown in the human, that under the effect of large doses of sodium

TABLE I—RESPIRATORY QUOTIENT AND OXYGEN CONSUMPTION IN CU MM PER MG OF MINCE BRAIN TISSUE (WET WEIGHT) FROM NORMAL ANIMALS AND FROM ANIMALS INJECTED WITH INSULIN, METRAZOL OR CAMPHOR

		Number of Experi- ments	Respiratory Quotient		Oxygen Consumption			
			Plain Ringer Phosphate pH 7.4	Ringer Phosphate with 2% Dextrose	Plain Ringer Phosphate pH 7.4 Minutes		Ringer Phosphate with 2% Dextrose Minutes	
					60	120	60	120
Normal Brain	Rat		1 00	99	88	1 45	1 12	2 22
Normal Brain	Cat		1 05	97	70	1 23	82	1 65
<hr/>								
INSULIN (50 U given intra- muscularly to 250 Gm rat to convulsions)	Rat	8	72	94	47	81	1 22	2 19
INSULIN (140 U given intra- muscularly to 10 lb cat to convulsions) Brain hemor- rhages very small	Cat	3	1 00	98	23	48	55	1 19
<hr/>								
METRAZOL (1 c.c. given intra- muscularly to 250 Gm rat to convulsions)	Rat	17 (plain) 13 (dextrose)	97	99	93	1 55	1 22	2 47
METRAZOL (3½ c.c. given intra- muscularly to 7½ lb cat)	Cat	3	1 05	1 01	71	1 45	97	1 68
<hr/>								
CAMPBOR IN OIL (1 c.c. injected intramuscularly to 250 Gm rat to convulsions)	Rat	6	98	1 00	88	1 50	1 24	2 44
CAMPBOR MONOBROMIDE (1.5 c.c. injected intravenously in cat to convulsions)	Cat	6	1 03	99	55	1 13	72	1 47

amytal there is a slight but definite diminution in uptake of oxygen and dextrose by brain

It is important to emphasize that all sedatives do not appear to interfere equally with the access of oxygen to, or its activation by, brain cells

All these drug effects on brain metabolism are exceedingly important and additional knowledge of these functions will undoubtedly be of much significance in elucidating some aspects of mental disorder and give clues to methods of curing mentally ill persons

Effects of Insulin, Metrazol, and Camphor

The recent use of pharmacological shock therapy for various psychotic states has brought insulin, metrazol, and camphor into general interest¹²⁻¹⁴

It was thought important to report the effects of these drugs on brain metabolism. Their relative clinical values must await unbiased, carefully controlled statistical studies and their ultimate effects must be tested by time

Insulin

The addition of dextrose or lactate to the blood supplying the brain stimulates the respiration of brain tissue. Conversely, the respiration rate of adult brain tissue decreases rapidly when it is deprived of dextrose. The oxidative stimulation seems to vary directly with the concentration (within physiologic limits) of such foodstuffs available to brain tissue. It must be remembered that over wide limits the effects of oxygen or dextrose deprivation can be reversible—however, beyond such limits the cellular anoxic effects may become irreversible and result in permanent damage to brain cells

The experiments to measure the effects of insulin, metrazol or camphor were carried out by two methods

1 Each of these drugs was injected into normal animals until convulsions or coma resulted. The animal's brain was rapidly removed and the respiratory metabolism of the brain tissue was studied over a two-hour period in the Barcroft-Warburg unit

Study of the brain tissue, after insulin was injected to the production of convul-

sions in previously starved animals showed (Table I) a marked depression of the respiratory quotient to 0.72 in a sugar-free medium and to 0.94 in a 0.2 per cent dextrose Ringer phosphate medium. Furthermore the oxygen consumption of the tissue is drastically diminished when sugar is not available—but returns to normal within two hours when sugar is available to the cells.

2. In the immersion experiments normal brain tissue was immersed in fluids containing various concentrations of insulin and metrazol and the respiratory metabolism of brain tissue measured over a two hour period while these drugs were in direct contact with the brain. These findings are in Table II. It should be noted that insulin had no deleterious effect on the brain tissue in this group of experiments.

In the cat similar metabolic effects are noticeable but diffusely located minute brain hemorrhages were observed throughout the brain tissue. Histopathologic changes (in the human following hyperinsulinemia) in the nature of edema degeneration of brain cells, extravasation of red blood cells into perivascular spaces and intracerebral and subarachnoid hemorrhages have been described by Moersch and Kernohan,¹⁵ Vonderahe and Keyes, and Freed and Riggs.¹⁶ The biochemical and some of the histopathologic data seem to indicate that there is a marked asphyxia of brain tissue. No doubt many of the cellular changes are reversible but this reversibility of brain tissue to normal must depend largely on the duration of the asphyxia to which the brain cells are exposed. As Cobb¹⁷ points out losing

many nerve cells may be relatively harmless for no one knows how many brain cells may be lost without causing mental impairment. However, a "good remission" in insulin therapy of psychotic states should not be measured alone by the yardstick of the patient "not disturbing his neighbors." There is no doubt but that if insulin injection resulting in hypoglycemia and brain cell asphyxiation is carefully managed, the destructive cerebral effects can be minimized.

Insulin diminishes the oxygen uptake of brain tissue. This was demonstrated by E. G. Holmes¹ and again by the author.⁴ The cellular anoxic effect probably produces the convulsive phenomena. However why diminished oxidations should first produce a discharge of neural impulses rather than a progressive suppression of activity requires further investigation. There is evidence that the brain anoxemia during insulin hypoglycemia produces a disturbance of the electroencephalogram resulting in concurrent decrease and eventual disappearance of the alpha waves as the patient goes into coma. As the patient comes out of coma the alpha waves return and the record becomes more regular.

Himwich and his coworkers^{8, 18} using the *in vivo* technic of measurement of blood going to and coming from the brain in insulin hypoglycemia showed that the oxygen utilization and the metabolic function of the brain was decreased during hypoglycemia. He reports that the average utilization of oxygen before the injection

TABLE II—RESPIRATORY QUOTIENT AND OXYGEN CONSUMPTION IN CU MAL PER MG OF WET WEIGHT OF MINCED RAT BRAIN TISSUE IMMERSSED IN SOLUTIONS OF INSULIN AND METRAZOL

	Number of Experiments	Respiratory Quotient		Oxygen Consumption			
		Plain Ringer Phosphate pH 7.4	Ringer Phosphate with 1% Dextrose	Plain Ringer Phosphate pH 7.4 Minutes	Ringer Phosphate with 1% Dextrose Minutes		
Normal Rat Brain		1.00	.99	.69 88	.128 1.45	.69 1.12	.128 2.22
INSULIN (average of .3U and .6U in sac of vessel). (Contents of sac upset at end of first 60 minutes).	8	1.00	1.00	.85	1.39	1.29	2.45
INSULIN (average of 1.3U and 1.5U in sac).	4			.90	1.18	1.41	2.55
METRAZOL (2% in sac)	6			.97	1.54	1.37	2.55
(4% in sac)	2			.90	1.30	1.34	2.40

of insulin was 709 volumes per cent, whereas during hypoglycemia the average cerebral uptake was 246 volumes per cent—a fall of approximately 65 per cent. The glucose utilization decreased from 130 to 22 Mg per cent simultaneously. It should be emphasized that there is lack of relationship between the degree of hypoglycemia and the intensity and kind of reaction. The pH was found by E. G. Holmes¹ to be higher in the brains of animals in which hypoglycemia had been produced by injection of insulin than in animals exhibiting normal or elevated levels of blood sugar.

All the foregoing studies of brain "in vivo" and "in vitro" indicate that insulin hypoglycemia drastically diminishes the blood sugar—the prime foodstuff available for brain tissue—and thereby drastically depresses the metabolism and oxidations of the brain.

Metrazol

The metrazol experiments were made by similar methods. Studies of the brain tissue removed after convulsions were obtained, showed the respiratory quotient and oxidative metabolism to be normal. The brain immersion studies indicated that the metrazol did not have a direct toxic effect on normal brain tissue. Furthermore, the oxidation rate of brain tissue following metrazol convulsions is not primarily depressed, as occurs as long as insulin hypoglycemia is present. It would appear that metrazol would therefore under some circumstances be less toxic than insulin on brain metabolism.

Histopathologic studies by Strecker, Alpers, Flaherty, and Hughes^{19, 20} made on monkeys given metrazol convulsive seizures also showed some evidences of hemorrhages into the supraoptic nuclei, subarachnoid hemorrhages and one animal had a tear of the hypothalamus. They report that the brain cortex seemed fairly well-preserved. But their experiments prove that the longer or more severe the metrazol reaction, the greater will be the resultant cerebral damage.

Himwich and his coworkers²¹ using the *in vitro* technic and measuring the blood constituents showed that metrazol convulsions were not associated with lowering of the blood sugar, but that metrazol diminishes brain metabolism by decreas-

ing or binding the oxygen that would normally be available for the combustion of blood sugar. Katzenelbogen has made exhaustive studies²² of various constituents in the blood and cerebrospinal fluid in metrazol-induced convulsions and he finds a *decrease* in the blood CO₂ combining power, the blood and cerebrospinal fluid pH, and an *increase* in the blood oxygen content (after convulsions), the blood and cerebrospinal fluid lactic acid, the blood and cerebrospinal fluid sugar, the blood, and cerebrospinal phosphorus. Kerr and Antaki have shown²³ that there was no significant change in the carbohydrate content of brain tissue of animals subjected to cardiozol, picrotoxin or strychnine convulsions.

The acuteness of the metrazol effect in depressing brain metabolism accounts for the clinical experience that these patients have considerable or complete amnesia for the events preceding the convulsive seizure.

Camphor

The camphor experiments gave results similar to those obtained with metrazol. In animal experiments with camphor monobromide convulsions made²⁴ in 1931, minute diffuse hemorrhagic lesions were found in the brain tissue. Nevertheless, here as with the metrazol-induced convulsions, the brain tissue metabolism was not disturbed over a prolonged period.

Brain tissue immediately after a convulsion respired at a normal rate and with a normal respiratory quotient of unity, indicating adequate combustion of glucose.

Discussion

This paper is not intended to concern itself with the refinements of the clinical methods of giving patients insulin, metrazol or camphor convulsions. Such directions have already been published.

I would like to indicate that this study is neither a recommendation or a criticism of any form of shock therapy for the psychoses. It is my belief that the psychiatrist should use any method of treatment that has proved itself reasonably safe provided he has some knowledge of the underlying pathophysiologic effect of such

treatment. Apparently, the available reports indicate that metrazol convulsion and shock treatment gives equally good results as those obtained from insulin shock. Both methods should be used by the psychiatrist and both require critical evaluation. We already know many substances that can change brain metabolism, and will very likely soon find many others that will produce equally remarkable effects. It appears to me that valuable knowledge of the nature of mental illness will only come when our advances in brain metabolism and brain chemistry are more complete.²⁵⁻²⁸

Schizophrenia is probably not produced by a single cause. Both biochemical and psychological factors are important in any study or treatment of schizophrenia. We, as yet, have no direct evidence of the biochemical or metabolic disturbance of brain function that obtains in schizophrenia.

We learned, even many years ago,²⁹ that shock therapy is often helpful in the treatment of the schizophrenic patient. The efficacy of these new and valuable pharmacologic and psychologic tools remains to be determined by additional experience and the passage of time. In the experience of most psychiatrists it is not the type but the duration of the psychosis that is most important. The therapist can only save what has not been irreversibly destroyed by the illness. Much schizophrenic illness is a reversible process. The treatment for all psychoses must be conducted with psychotherapeutic wisdom—before, during or after any form of shock treatment. This field of investigation is only beginning to yield fruitful results.

Conclusions

1 The respiration rate and metabolism of brain tissue depend on the presence of adequate available oxygen and glucose in the brain cellular and pericellular tissues.

2 As the blood sugar level falls in insulin hypoglycemia, there is a concurrent fall of brain metabolism due to lack of available brain foodstuff. This results in cellular anoxemia and asphyxia with first irritation and then depression of brain function, as indicated in the patient's behavior, thinking, and the brain electrical rhythms. In deep prolonged coma, some brain cells may suffer irreversible changes if the cellular anoxemia is too severe or too long-maintained. Most brain cells return to normal oxidative metabolism when sugar is available. Furthermore, hemorrhagic and edematous lesions are found in the brains of patients dying from hyperinsulinism with hypoglycemia.

3 In metrazol and camphor convulsions the blood sugar is not lowered and therefore adequate foodstuff is available for brain tissue. Both these convulsants however decrease the oxygen—partly by slowing of cerebral circulation—which would be available and which is necessary for the normal combustion of sugar by the brain.

It would, moreover, appear from my experiments that brain tissue oxidative metabolism recovers more rapidly following metrazol and camphor than it does following insulin induced hypoglycemic convulsions. Hemorrhagic lesions are also found in animals subjected to prolonged metrazol or camphor convulsions.

410 E. 57 St

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GAS GANGRENE

Morbidity and Mortality in New York State (Exclusive of New York City)—Based on General Hospital Reports for the Years 1932–1936 Inclusive

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When a patient has or is suspected of having gas gangrene, the discussion quickly turns to serum therapy as well as surgical and other procedures. The use of gas gangrene antitoxin for prophylaxis is also increasing. Gas gangrene antitoxin is expensive and the question is frequently asked "Why doesn't the State Department of Health furnish gas gangrene antitoxin without direct cost to the patient or physician as it does many other biologicals?" Although this compilation is not free from error, and not complete for the area (New York State exclusive of New York City), the figures will give a general idea of the incidence of gas gangrene. The estimated population for this area ranged from 5,843,393 in 1932 to 5,981,602 in 1936.

The reports in this compilation were assembled in the following manner. A letter and list of questions were mailed to the Superintendents of all general hospitals of fifty or more beds in New York State. The following information was requested:

A Number of gas gangrene infections in your hospital during the last five years (1932–1936 inclusive)

B Description of injuries or conditions and their care preceding the infection

C Time elapsing between injury and recognition of infection

D Bacteriological confirmation, kinds of bacteria present

E X-ray diagnosis

F Surgical care and general treatment

G Specific treatment. Serum—prophylactic use, serum—curative, amounts used, source, cost

H Results obtained—Recoveries and deaths

I General statement regarding need and value of serum

The writers are indebted to Miss Ruth I. Stephens for assistance in compiling and tabulation of records.

J Suggestions and comments

Considering the number of requests for information received by most hospitals, many of which have difficulty meeting their immediate problems, the response (Table I) is considered quite satisfactory.

From the records submitted in answer to these questions, the total number of cases have been divided into four groups (Table II).

If Groups III and IV are excluded, the total gas gangrene infections for the five years (1932–1936) number 135. Undoubtedly a large percentage of patients listed in Groups III and IV had gas gangrene infections. While the number of infections for the five year period cannot be definitely determined, the figures give some idea of incidence.

From the reports submitted, Table III based on predisposing factors has been arranged. Only the 135 cases classified in Groups I and II have been used for this purpose.

In this series, nine diabetic patients developed gas gangrene following amputation, all of whom died. Four arteriosclerotics developed gas gangrene following amputation, of these, three died. Six diabetics developed gas gangrene before surgical treatment, of these, three died (Table IV).

In Table III, seven deaths are listed under pregnancy. A few statements concerning these patients are compiled in Table V.

Statements from recent literature are included for confirmation of and comparison with some of the findings in this report.

In 1931 a Committee¹ from the Hospital for Joint Diseases of New York City submitted a report on "Gas Bacillus Infections in Amputation Stumps." The

authors state that "the two types of patients which seem most likely to get gas bacillus infection after amputation are either the diabetics or the arteriosclerotics, these may be considered as one large group of those having vascular disease of the extremities." Serum therapy for prophylaxis and treatment is discussed and the following statement made "We feel that the Board of Health of this City or State should be encouraged to prepare and market this serum"

In their article "Gas Gangrene in Civil Surgery," Collier and Perham² reported thirty-six gas gangrene patients observed in the University of Michigan Hospital from 1927 to January 1936. Nine of these infections were postoperative. Four of them occurred in diabetics who had undergone amputation. The following comments are made regarding serum for prophylaxis "Our experience with it in this group of patients has been so small that no important deductions can be made. It is our belief that in the present state of our knowledge, this antitoxin should be used and in cases where the possibility of the infection is great, doses approaching the therapeutic titer are advisable."

Regarding the therapeutic use they state "There is strong clinical evidence

that antitoxin is effective in combating the toxin once the infection has become established. In order to readily combat the strong hemolytic, and local necrotizing properties of the toxin most effectively, the intravenous administration of polyvalent serum in therapeutic doses is the method of choice. It should be well diluted in normal saline or glucose."

Elason, Erb, and Gilbert³ recently published an article on gas gangrene in which is a statistical analysis of 349 cases from 1930 to 1936. They state

In the 43 cases here reported from the Hospital of the University of Pennsylvania and the Philadelphia General Hospital 34 followed amputations of which 23 occurred in diabetic gangrene, 3 in senile gangrene, 2 in Buerger's disease, 2 following trauma and 1 secondary to embolus. Compound fractures preceded 5 occurrences. Of the 4 remaining 1 occurred following operation for peptic ulcer, 1 after operation for gall bladder disease and only 1 after a gunshot wound another was secondary to a severe soft tissue contusion.

Seventy-nine per cent of the cases seen in these two hospitals follow amputations through clean fields. This is not the experience in hospitals admitting a large num-

TABLE I

Hospitals reporting cases	57
Hospitals reporting no cases	32
Hospitals not replying	25
Hospitals acknowledging letter but no report	4
Hospitals replying but information not available	3
Total hospitals	121

TABLE II—GAS GANGRENE GROUPING OF CASES REPORTED

Group I—Patients with records positive for gas gangrene—clinically and bacteriologically.
Group II—Patients with records incomplete but sufficient evidence however to be included as gas gangrene.
Group III—Patients with records that made the diagnosis questionable.
Group IV—Patients with data too incomplete to determine accuracy of diagnosis.

No cases

Group I	87
Group II	48
Group III	34
Group IV	39

Total cases reported	208
Total cases gas gangrene (excluding groups III and IV)	135

TABLE III—TABULATION OF PREDISPOSING FACTORS

	Cases
Traumatic	91
Clean amputations	13
Pregnancy	7
Gun-shot	5
Miscellaneous	19
Diabetes	6
Appendicitis	4
Urinary bladder rupture	2
Cellulitis	1
D & C, perineal repair	1
Gall-bladder operation	1
Intestinal obstruction	1
Skin graft	1
Strangulated hernia	1
Urinary bladder operation	1
Total	135

TABLE IV—GAS GANGRENE FOLLOWING CLEAN AMPUTATION

	Serum Alive Dead	No Serum Alive Dead
Diabetic	0	0
Arteriosclerotic	2	2
No prophylactic serum given these patients.	0	0
Six diabetics developed gas gangrene before surgical treatment.		
Of these three recovered, 1 of whom received serum and 3 died, 1 of whom received serum.		

ber of industrial and automobile accidents, however

Ehason, Erb, and Gilbert make the following statements regarding serum

The value of serotherapy seems to be well established. A summary of its results is found in Table VII. The results as shown in Tables II, III, V, and VI very definitely indicate the lowest mortality with serum therapy combined with conservative surgery. The value of serum as a prophylactic measure has not been as definitely shown. Statistics from the War (Table VII) would tend to show that it was useful. Insufficient data have been presented in the literature regarding its use in civil surgery to formulate any conclusions. At the present time perfringens antitoxin is being used prophylactically in both the Hospital of the University of Pennsylvania and the Philadelphia General Hospital. It is the authors' impression that the incubation period is longer and the clinical signs milder after a prophylactic injection of serum. One must guard against being lulled into a false sense of security because of this delay in development of the disease, however.

Table VI is a compilation of data concerning the use of antitoxin for prophylaxis and treatment in the 135 cases of Groups I and II. It is to be noted that nine of these patients received prophylactic injections and that two died. These two fatalities probably resulted from damage other than gas gangrene infection. Details are given in Table VI.

Because of lack of detailed information, no attempt has been made to determine the amount of serum used in every case. Sometimes it was known to be inadequate. Regardless of amount, all patients who received serum are listed as serum-treated.

It is not easy to determine from clinical experience the value of gas gangrene antitoxin. Many of the infections occur in individuals who do not survive for reasons other than gas gangrene. Some infected individuals not given antitoxin recover because they received other forms of treatment. Without careful observation and history, one should be cautious in drawing conclusions. Continued use and careful observations are necessary if there is to be better understanding of serum therapy.

In conditions such as severe trauma

TABLE V—GAS GANGRENE—PREGNANCY

1	Eight months pregnant	No fetal heart sounds
Fever	Patient not examined	No operation
serum.	Diagnosed at autopsy	
2	Eclampsia	Secondary anemia
Live child	No serum	Diagnosed at autopsy
3	Criminal abortion	No serum
		Diagnosed at autopsy
4	Criminal abortion	Confirmed by culture.
serum	Died	No serum
5	Criminal abortion	No serum
		Diagnosed at autopsy
6	Miscarriage.	Retained placenta, removal with sponge forceps
	No serum	Diagnosed at autopsy
7	Self induced abortion	No serum.
		Diagnosed at autopsy

TABLE VI—GAS GANGRENE

	Serum		Serum		No Serum	
	Prophylactic	Therapeutic	Prophylactic	Therapeutic	Alive	Dead
Trauma	7	*2	46	19	13	13
Clean amputation	0	0	2	2	0	9
Pregnancy	0	0	0	0	0	7
Gun-shot	0	0	2	2	0	1
Miscellaneous	0	0	5	6	3	5
	7	2	55	29	16	35
		9		84		51

* Elderly man struck by auto. Compound fracture right tibia and fibula bones protruding. Incubation period six days. 'His death was only hurried by gas bacillus infection as his injuries were numerous and serious'.

* Man 43 years old. Struck by auto. Compound fracture of tibia and fibula, extreme trauma to soft part. Treatment for shock for five hours. "A prophylactic dose of gas gangrene—tetanus antitoxin, therapeutic injections amputation and X-ray treatment were all of no avail in this fulminating case. The leg would have been amputated if shock had not been so marked."

TABLE VII—TETANUS MORBIDITY AND MORTALITY NEW YORK STATE (EXCLUSIVE OF NEW YORK CITY) 1932-1936 INCLUSIVE

Year	Cases	Morbidity		Mortality		Case Fatality Rate
		per 100,000	Deaths	per 100,000		
1932	50	0.9	38	0.7		76.0
1933	70	1.2	45	0.8		64.3
1934	58	1.0	37	0.6		63.8
1935	36	0.6	23	0.4		63.9
1936	61	1.0	40	0.7		65.6

TABLE VIII—DISTRIBUTION OF TETANUS ANTITOXIN BY NEW YORK STATE DEPARTMENT OF HEALTH 1932-1936 INCLUSIVE (EXCLUSIVE OF NEW YORK CITY)

Year	Total No of packages	1,500 units packages	10,000 units packages	20,000 units packages	Total units of antitoxin*
1932	46,151	44,517	951	683	89,945,500
1933	48,591	46,343	1,187	1,061	102,604,500
1934	53,393	51,563	1,040	790	103,544,500
1935	54,945	52,616	1,337	992	112,134,000
1936	58,713	56,476	1,197	1,041	117,494,000

* During 1936 the average titer of tetanus antitoxin was 1,888 43 units per c.c. maximum 4,150 units, minimum 1,250 units.

with soil contamination, deep penetration of tissue by dirty objects, gun shot wounds, amputations necessitated by gangrene and other trophic changes, prophylactic use of gas gangrene antitoxin should not be overlooked.

Since this report concerns infections by spore-bearing anaerobic bacteria it should be instructive to compare the morbidity and mortality of another infection caused by an organism of the same genus, *Clostridium tetani*. Like gas gangrene, tetanus results from infection of damaged and devitalized tissue. Tetanus is a reportable disease and the statistics submitted were obtained from the New York State Department of Health.

During the years 1932-1936 inclusive, the morbidity and mortality rates reported for tetanus in New York State exclusive of New York City are shown in Table VII.

If the data submitted regarding gas gangrene are accepted, they indicate that infection by this group of spore-bearing bacteria are probably as frequent as tetanus.

For prevention and treatment of tetanus, much antitoxin is prepared and distributed by the New York State Department of Health the amount for the years 1932-1936 is given in Table VIII.

It is hoped that the statistics offered, incomplete as they are concerning gas gangrene in New York State, exclusive of New York City, will be of value in determining whether gas gangrene antitoxin should be prepared and supplied by the State Department of Health.

The lack of statistics regarding gas gangrene among civilians is unfortunate. By requiring the infection to be reported, interest would be stimulated and valuable information made available.

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ANIMALS THEIR OWN DOCTORS?

A physician of Sussex, England tells a tale in the *British Medical Journal* of a wise dog with rheumatism which swallowed bees and recovered. He is Dr J Stewart Richards, and describes the animal as "a Sealyham, aged 6" He goes on

"He was not markedly intelligent but of active habits, his main objectives in life being the pursuits of food, tennis balls, and rabbits. At one of my visits to his home he was quite disabled for any active exercise save a painful halting walk, his back and buttock muscles were very stiff and tender and obviously painful. The veterinary surgeon's diagnosis was "rheumatism," and mine "fibrous rheumatism." The condition was attributed by his owner to a curious habit he had of sitting on a damp spot, or sometimes actually in water to cool off the heat of the chase. The stiffness lasted for some months but when I next saw him he had completely recovered. I asked for further information and was told that for a short time before his recovery he had been seen going around the flower beds snapping up

bees and eating them. My informant was my niece, the owner of the dog, a dog lover and an acute observer. Whatever effect the bee venom by mouth may have had on the disease, does not the coincidence of the bee-eating and the attack of rheumatism suggest some intuitive impulse in animals, or, shall I say empirical knowledge of certain internal remedies for their disorders? In the matter of bee venom have they anticipated the researches of the medical profession? Why do dogs so often resort to eating grass and that of the coarsest kind? Is it for constipation? Cows exhibit under certain conditions much appreciation of a lick of salt. A greedy dog I know, after unusual gorging resorted to a sun warmed stagnant pond and drank freely. Almost immediately he vomited copiously and seemed greatly relieved the water was warm and foul enough to act as a potent emetic. I have not read any account of the spontaneous use by animals of internal remedies for their disorders, but perhaps this note may elicit information on the subject from some of your readers."

OTITIC MENINGITIS DUE TO STREPTOCOCCUS HEMOLYTICUS

Operation and Recovery

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A L , white, male, aged seven years, was admitted to the Polyclinic Hospital, on the service of Dr Kopetzky, March 13, 1937, with the following history

One week before admission, child complained of pain in the right ear which was soon followed by a spontaneous discharge. Two days later his temperature was 105°F which came down to normal on the following day. The ear continued to discharge and when, on the day before admission, his temperature again rose to 104°F and continued high, he was brought to the hospital

Previous history Abscess of right ear December 1933, paracentesis, recovery. In October 1934 he again had an abscess of the same ear, paracentesis, recovery. Tonsillectomy in 1935. No history of chronic ear discharge. Other previous history irrelevant.

Physical examination Child appeared acutely ill. Temperature 103.6°F, pulse 130, respiration twenty-four. Throat normal, a mucopurulent discharge was present in both nares. The left ear drum was normal. The right ear drum was congested, bulging and the landmarks were obliterated. A small central perforation was present in the posterior part of the right drum membrane. A myringotomy was performed and a serosanguineous discharge obtained. Patient was then admitted to the hospital, and the usual laboratory examinations, including x-ray of the mastoids, were ordered.

March 14 Child complained of generalized headache, vomited, temp 103°F

March 15 Temperature 104.6°F. Roentgenograms revealed large pneumatic mastoids with evidence of inflammation on the right side. No breaking down or coalescence of cells. Petrous tips not pneumatic.

Blood count R.B.C. 3,700,000, Hgb sixty-eight per cent. W.B.C. 28,000. Neutrophils seventy-five per cent, lymphocytes fifteen per cent, myelocytes ten per cent. Slight achromia.

Urinalysis, faint trace of albumin and acetone, otherwise normal.

March 16 Marked rigidity of the neck, bilateral Kernig, suggestion of Babinski

Temperature 104.2°F. Ear very slight serous discharge, landmarks reappearing, drum membrane flat. Lumbar puncture revealed cloudy fluid under pressure. The cell count was 5355 with eighty-two per cent neutrophils.

March 17 General appearance of patient about the same as on previous day. Nuchal rigidity and Kernig still present. Temp 102°F. No discharge from ear. Drum membrane almost normal in appearance. Spinal puncture, twenty-five c.c. of cloudy fluid under pressure was removed. No organisms were found on smear. Culture of this fluid reported twenty-four hours later was positive for streptococcus hemolyticus.

March 18 Condition unchanged. Spinal tap revealed cloudy fluid.

March 19 Blood culture proved negative after forty-eight hours. Transfusion of 120 c.c. whole blood. As the condition did not improve, operation on the right mastoid was undertaken in spite of the apparently normal findings in the right ear.

Operation Right radical mastoidectomy. No pus, softening of bone or congestion was found. Tegmen of mastoid, antrum, and tympanum was then removed disclosing an apparently normal dura of the middle fossa. A portion of the sinus plate was also removed exposing a normal sinus wall. The absence of gross pathologic findings or leads discouraged any further surgery. The plastic operation on the auricle could be done when and if the patient recovered. The wound was therefore left open and packed with iodoform gauze.

Intramuscular injections of prontosil, five c.c. t.i.d., and prontosil by mouth gr ten t.i.d. was ordered. The prontosil was discontinued after twenty-four hours, while the prontosil was continued for one week.

March 20 Temperature 103°F which came down to 100° toward evening and to normal within a few days. Spinal fluid still cloudy.

March 22 Culture of spinal fluid taken two days before still showed positive for streptococcus hemolyticus.

March 26 Plastic operation on right auricle. Postauricular wound closed.

April 6 Patient discharged to O.P.D. for postoperative care.

Comment

Analyzing the case from a surgico-pathological point of view, it seems evident that, although gross pathologic findings in the temporal bone were lacking, the meningeal invasion must have taken place via the blood channels which pass from the middle ear and mastoid through the tegmen. It is reasonable, therefore, that the surgical removal of this plate of bone interrupted the spread of the infection and initiated the recovery.

Encouraging reports have recently appeared in the literature from the use of a new sulphonamide radical in infections with the beta hemolytic streptococci. A large number of laboratory and clinical

reports by European and American observers are rapidly accumulating, showing that these drugs have an inhibitory effect on the growth of the hemolytic streptococci *in vivo*, facilitating their ingestion by the phagocytes.

Based on these reports, the author was encouraged to try the administration of prontosil and prontosil to this patient. It appeared indicated, since the pathologic findings on the operating table seemed insufficient to expect a cure from the operation alone.

It is the sense of the author that the two methods of therapy complemented each other and account for the happy outcome in this case.

115 W 73 St

SPONTANEOUS RECOVERY FROM CANCER

The frequency of spontaneous cure in cancer has been placed at one case in 100,000. In fully authenticated cases a primary growth has been quite incompletely removed or merely subjected to biopsy, and has nevertheless later disappeared, necropsy following death from another cause revealing no trace of the growth. The subject of spontaneous recovery from cancer has recently been reviewed by Touraine and Duperrat, who discuss the circumstances in which it takes place and possible explanations of it.

Of many factors which have been supposed to be responsible fever is most often mentioned, while infection of the growth, or the treatment of an infective condition such as syphilis in which the growth arose, has also been given credit for its regression. If these influences play any part they can only have this effect very exceptionally. Infected growths frequently spread rapidly and hyperpyrexia has been found unavailing in the treatment of growths in animals even when carried to a point which would be unjustifiably dangerous in man.

Although high temperatures are no more lethal to cancer cells than to the rest of the body it remains possible that fever or some other disturbance may exceptionally cause a metabolic change inimical to the cancer cell. This metabolic hypothesis com-

pletely vague though it is appears to be one of the two chief possibilities and it can go no further than to suggest that in some way the nutrition of the growth is interfered with. The other assumes the development of a humoral immunity, or at least a specific attack on the growth. Leucocytic infiltration at the margin, which is undoubtedly more pronounced when the growth rate is slow and particularly so after successful irradiation lends support to the idea that the body is capable of attacking a growth by the same means as are used against foreign invaders.

The existence of a specific antibody to the cancer cell has been both asserted and questioned, and the part played by humoral immunity in cancer remains a matter of great doubt and difficulty. Regression occurs frequently in transplanted animal tumors in some indeed it is the rule, and the contrast between the behavior of these transplanted tumors and spontaneous growths is so marked that what is true of one may well not apply at all to the other.

There is one encouraging aspect of this subject the mere fact that human tumors ever regress however rarely, suggests that some mechanism exists by which the same result could more often be brought about, and this may yet be discovered.

Papers were read at the meeting of the Buffalo Academy of Medicine, on May 25, on "Diseases of the Prostate and Related Conditions," with motion pictures, by Hugh

H. Young M.D. Professor of Urology, Johns Hopkins and on "Lesions in Sudden Death" by Jacob Werne M.D., Assistant Medical Examiner of the City of New York.

Preventive Medicine

Tuberculosis Control as Practiced by the New York City Department of Health

JOHN L. RICE, M.D. and HERBERT R. EDWARDS, M.D., *New York City*
Commissioner of Health (JLR) Director, Bureau of Tuberculosis (HRE)

Tuberculosis is a communicable disease and its control therefore by legislative act is the duty of the Department of Health. However, the Department does not perform all phases of tuberculosis control. The Department of Hospitals provides beds for the treatment of cases, and in selected hospitals operates outpatient services for the care of ambulant cases. There are two private hospitals which assume responsibility for a designated district for ambulant cases, one of them also operates beds, primarily for patients clearing through their clinic. Other private hospitals are subsidized in part for the care of city cases. We also consider the organized medical profession as a part of the city-wide program. In addition, the various welfare, social service, and nursing organizations contribute substantially to the program. The voluntary Tuberculosis Associations, as well as other such agencies have a definite part to play in the army of workers who are fighting against the disease.

The main objectives of our program are based upon the fact that tuberculosis is an infectious disease. We consider infection with the tubercle bacillus a dangerous matter at any period of life and to be avoided with all the energy at our command. Thus, our first responsibility is the proper isolation of the known case, the second—of no less importance—is the discovery of unknown cases before the disease has progressed to the advanced stages.

The prosecution of our program depends upon certain legislative assistance, i.e., the prompt reporting of cases by the practitioner, clinic hospital or other agency having knowledge of the existence of the disease. The reporting of a case means much more to us than the mere filing of a card

and the building up of numbers for annual reports. Each case receives some degree of supervision depending upon the conditions presented. Those under the practitioner are encouraged to remain there if the physician is willing to assume the responsibility for such supervision. In such cases the Department requires reports biannually as many cases shift from one physician to another, and we insist that they remain under some supervision.

Twice yearly we contact the physicians having registered cases on whom there has not been a positive sputum within three years. If he can submit evidence to indicate the arrest of the disease, the case is removed from active supervision. In this way, as well as others, we constantly endeavor to give careful consideration to the rights and prerogatives of the practitioner. Frequently in the final clearing of these cases the physician makes use of our Consultation Chest Service.

The Sanitary Code makes provision for the forcible detention of the recalcitrant case. This facility is not utilized anywhere near to the limits of the actual needs for such service. The lack of a special hospital for such cases, as well as the acute shortage of available beds has caused us to resort to this measure only in extreme emergency. There is no reason, however, why an open case of tuberculosis should be allowed any more privileges than any other infectious and communicable disease. In the use of this regulation, the Department has tried to bring to the fore its educational value, by raising detention as soon as the patient is ready to accept supervision and cooperate in the future. This regulation should be used for those cases who so frequently sign themselves out of

*Read at the Annual Meeting of the New York Tuberculosis and Health Association,
New York City, March 1, 1938*

hospitals against medical advice. The judicious use of detention should within a reasonable period establish the fact in the minds of the populace that the Department means to control and isolate infection.

Supervision of the approximately 35,000 registered cases in the City would not be possible without a central roster. Such a modern device is set up in our central office, where all cases reported are checked to determine if they are new, or if they were previously known. Some of the latter may have been arrested at one time and have become reactivated. Frequently in such instances we may have old records and x-rays that are of the greatest value in a proper appraisal of the case.

Clinic Services

One of the major activities of the Bureau of Tuberculosis is the operation of our various clinic services—Diagnostic, Consultation, and Pneumothorax. All of the clinic services for tuberculosis in New York City are not entirely under the Department, some are operated in public and private hospitals. As of January 1, 1938, there were sixty-two ambulant clinic services operating in the City. The Department's responsibility is as follows:

Diagnostic services eighty per cent, Consultation services for private practitioners, ninety per cent, Pneumothorax services thirty-one per cent, and Hospital Admission Clinics, twenty-five per cent, or a total of fifty-eight per cent for all services. It is of interest to note that in the Pneumothorax clinics the Department actually carries forty-five per cent of the entire case load.

In our diagnostic clinics we supervise the families and contacts to most of those cases in hospitals and sanatoria as well as the ambulatory case. Our aim in this work is to render a selective supervision of cases and contacts based on the importance of the problem under consideration. Thus we endeavor to promptly clear contacts as soon as the source case is known. Those not in need of further care are discharged, reserving our energies for those in which we believe there is a present or a potential problem. Three new clinics for this type of service will be opened in 1938 and there is sufficient evidence to indicate that at least four additional services should be started in areas not now provided for.

The Consultation Chest Services for Private Practitioners is, we believe, one of our most valuable efforts to cooperate with the private practitioner. They are designed to meet that economic group of patients under private medical care who are unable to pay for standard costs for chest consultation and x-ray. These clinics are scheduled to their full capacity and in some there is a waiting list two or more weeks long. The nine clinics now operating should be doubled to give coverage in each Health Center district, and are included in our plans for expansion.

The Pneumothorax Clinics represent the only definite treatment facilities operated by the Department. In this connection there has been some discussion as to whether all such services should not be under a hospital. In theory that conclusion is justified, but in practice the problem is not so easily solved.

In the first instance the geographic location of our hospitals will not permit the return of all discharged cases to the institution for refills. Furthermore with our present hospital set up, and probably any possible plan in the future, it will always be necessary to transfer cases from one institution to another. Thus the continuity of services in a great percentage of cases cannot be unbroken from the point of initiating the pneumothorax to its ultimate ambulatory supervision. In tuberculosis administration the greatest success is obtained when we maintain the family unity. Thus it is not desirable to carry an ambulant case at one clinic and the contacts to that case at another. In the final analysis the success of ambulatory pneumothorax work depends upon the qualifications of the physician in charge. In this respect the Department can provide a staff fully as competent as that in the hospitals.

The practical side of this problem is more readily realized when we consider that each month there are from 250 to 300 patients in our hospitals under pneumothorax care that are considered ambulatory. Their prompt transfer to the ambulant clinic would thus free a number of beds and thereby increase the use of their limited facilities. The building up of large pneumothorax services will invariably lead to monotony and routinization and it is doubtful if under the most capable guidance the individual would be benefited as well as if he were in a

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to pulmonary lesions we have discovered a large number of cardiac conditions that for the most part were not previously recognized and were not under treatment.

Through our own facilities, we have developed several interesting studies. Since 1936 we have routinely x-rayed all new applicants for positions in the Department of Health. In cooperation with the Civil Service Commission we have x-rayed all applicants for the Fire Department and more recently we are x-raying all applicants for licenses as guides. We find on the average about one per cent with pulmonary tuberculosis.

Our experience in case finding clearly indicates that the methods are available and only the lack of funds prevents our finding enough cases to fill all available beds with early disease. As a matter of fact, our activities in this field are now far beyond the capacity of our hospitals to care for them.

In this connection we must consider the hospital problem in New York City. At the present time we have about one bed for each annual death. The ratio should be at least two beds for each death or an additional 5,000 beds. Our hospital situation is one of a chronic emergency. True it has been present for years nevertheless considering the curability of the disease when discovered early, and the known facilities for case finding, our situation can only be considered as worthy of emergent action. Delay in providing these facilities can only result in further needless waste of life and community resources. The demand for these facilities are no less important than the need for parks, better housing and a score of other community investments.

Other Bureaus of the Department play an active part in our control program. Of the first importance is the Bureau of Nursing without which our services would be of little value. In numbers our staff is large but when spread over the manifold duties imposed upon them their accomplishments can only be superficial in many

instances. Thus, tuberculosis nursing is usually on a seasonal basis the same as the acute communicable diseases when it should be a consistent and continuing service to cope with the chronic nature of the disease. Our own nursing staff is greatly augmented by the various other nursing services in the City. This combined army of workers is still below the real needs as indicated by our problems.

In addition to our routine work, we are ever anxious to investigate better and more efficient methods. In the Kips Bay-Yorkville district for the past three years we have combined forces with New York Hospital and Cornell Medical School in an intensive study of epidemiology for that area. In Mulberry Health Center, operated by the A.I.C.P., we are carrying on other special studies, all of which are leading us to improved methods of control. At this time these studies have helped us to properly evaluate many procedures which have resulted in the elimination of some as valueless and to strengthen others. In our own clinics we are constantly developing newer and more efficient methods of supervision. This phase of our work must continue so that we will use the limited funds at our disposal in the most effective way possible.

Educational activities are being developed for our own staff of physicians, nurses, and technicians and we are now ready to develop such services in the five medical schools among private practitioners, other health and social agencies, as well as the public at large. In this broad field we have had the support and cooperation of other established agencies.

The voluntary agencies in the City particularly those devoted to tuberculosis work have contributed heavily to our work. Their efforts directed to the public at large are responsible for a goodly share of our advancement because they have done much to mold public opinion to a point where official action takes place.

125 WORTH ST

Albany County The Woman's Auxiliary of the Albany County Medical Society held a meeting in the Nurses Home of the Albany Hospital on May 25. Mrs. Albert Vander Veer, 2nd president of the auxiliary, presided at the meeting.

Dr. J. Rosslyn Earp of the New York State Health Department gave an address on "State Medicine."

The meeting was well attended. It is planned to hold monthly meetings with guest speakers.

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EDITORIALS

"Ends and Means"

In his latest book, "Ends and Means," Aldous Huxley unwittingly illuminates the American medical profession's attitude toward compulsory sickness insurance. Mr Huxley insists that bad means cannot create good ends, even when employed with the best of intentions. Reformers frequently and flagrantly defeat their purposes by employing methods which create worse evils than those they set out to correct. This is precisely the case with obligatory health insurance.

Experience has repeatedly demonstrated that compulsory insurance is a defective instrument for the production of national health. It fosters malingering and irresponsibility in the insured public, attributes in themselves incompatible with any "genuine change for the better." There are no compensatory benefits in the way of improved medical service. The profession, also deprived of personal responsibility and shackled by bureaucratic regulations, sinks to the level of the despised "pill-roller." Both the opportunities and the incentives for original, profound work are lacking.

Those who urge compulsory sickness insurance would destroy the existing system of medical practice, which has brought about such notable gains in public health, without providing anything better, or even just as good, to take its

place. Of this sort of heedless change, Huxley says: "It is very important that social reformers should abstain from making unnecessary changes or changes of startling magnitude. Wherever possible, familiar institutions should be extended or developed so as to produce the results desired, principles already accepted should be taken over and applied to a wider field."

This is precisely the contention of organized medicine in this country. It urges retention and extension of the methods of private practice, which has demonstrated its social and scientific value throughout the centuries. It refuses to scrap tried and proven principles for a system which has failed completely to demonstrate any superiority.

This does not mean that the American profession is opposed to desirable innovations or to planning for the future. It is merely opposed to the sort of plans which are imposed from the top by a centralized bureaucracy rather than from the bottom by actual popular needs.

As Professor David Mitrany once said in an article in the "Yale Review," "planning, if it is intelligent, should allow for a great variety of organization, and should adapt the structure and working of its plans to the requirements of each case." National health insurance cannot and does not do this

The kind of planning advocated by organized medicine—in which the system is devised by the county medical society in conformity to local needs—does

pulsory sickness insurance would give a strong impetus to a dangerous movement. The Convention must be made to see that this road leads away from better health, not toward it, and can never command wholehearted medical support

The Constitutional Convention

The Constitutional Convention is holding public hearings on the most important questions before it. Almost twenty of the 652 propositions submitted to it deal with health insurance or some other form of state medicine. The sociological advisers to the Convention are largely of that lay welfare group which favors expansion of governmental functions at the expense of private enterprise. Obviously the profession must make a strong showing if it is to prevent the adoption of one of the many propositions designed to commit the state to obligatory health insurance—the most popular form of state medicine at the present time.

Five of the measures before the Convention specifically authorize state health insurance. Another three call for new legislation to protect and foster the public health without specifying by what means. Three others charge the state with the provision of medical care for all school children, whether they attend private or public schools and without regard for the financial status of the parents.

The whole trend of these propositions is to destroy the normal responsibilities of the individual and build up state control of the masses of the people by the "bread and circus" method. Adequate medical care can be furnished to the poor and medically indigent without the creation of an elaborate political bureaucracy and the destruction of public morale. It has been done in emergency home medical relief and other simple, logical projects launched by the profession. Compulsory sickness insurance fails to provide for large sections of the public and offers inferior service to the rest.

Physicians must make their voice heard at the Constitutional Convention. A declaration by this body in favor of com-

A Little-Known Cause of Drowning

With the season for swimming well under way, we must be prepared for the hazards which this sport presents in the way of disease and danger to life. Besides the many cases of infections of the tympanic cavity and nasal accessory sinuses which result from swimming, and the danger that it presents as a source for the spread of poliomyelitis, losses of life due to drowning are far too numerous. Physical safeguards, when strictly adhered to, will save many a life, but the physician can absolutely abolish drowning as a cause of death in those individuals who are allergic to cold.

A person who is allergic to cold may develop severe constitutional reactions soon after entering the water. A feeling of weakness is experienced which may at times assume real unconsciousness and the victim becomes totally helpless. He can make no effort to call for help, and, unless soon rescued, he suffers a complete circulatory failure and drowns. Some cases of cold allergy are accompanied by urticaria. In most of them a fall in blood pressure, a rapid pulse, and syncope are noted.¹

Such people, therefore, may meet with disaster by diving into cold water. Physicians should be on the alert for these cases so that they may forestall accidental death from drowning due to the allergic state. The presence of an allergic condition in any patient calls for a test for sensitivity to cold. The simple immersion of the hands in very cold water for several minutes will bring on an anaphylactic reaction in a short time in a sensitive individual. Desensitization may

¹ L. Horton and Roth. *Proc. Staff Meet. of Mayo Clinic* 12:7 1937.

then be undertaken by repeating the above procedure twice daily for three weeks. Horton and Roth also recommend injections of histamine as a desensitizing agent.

Syphilis A Preventable Disease

The campaign against syphilis has been welcomed by the medical profession. It represents the victory of education over prudery posing as morality. After years of persistent effort, the government has finally recognized its responsibility in the control of this communicable disease. What is now being done is of inestimable value but it is far from being enough if we would eradicate syphilis. The adequate treatment of an infected person is vastly important, but far more important would have been preventing that person from having acquired syphilis. In this state, fortunately, we may now look for a considerable decrease in the number of congenital syphilitics since the enactment of the law requiring a test for syphilis in all pregnant women. *But the incidence of acquired syphilis will not diminish as long as the question of prophylaxis is overlooked.*

Auslander¹ says "No amount of curative treatment will eradicate the disease as long as the factor of prophylaxis is ignored. No community undertaking a responsible program in the control of typhoid fever would permit carriers to go unmolested, or the danger from a polluted water or milk supply to go unremarked. The epidemiology of syphilis and gonorrhea requires that equally stringent methods be applied to the control of these diseases." This is the ideal we hope for. Unfortunately, however, it will never be realized in the control of syphilis until the problem of prostitution has been solved successfully. Legislation will never rid the community of this source of infection. The apprehension by the police of an infected prostitute occurs only *after* she has spread the disease.

Therefore, until such time as this prob-

lem is solved, it is essential that the knowledge of the prophylactic measures which the medical profession *knows* are effective against the contagion of syphilis be widely disseminated to the public as a part of the campaign against this disease. The contention that such knowledge would lead to sexual promiscuity is no argument to be entertained when a devastating disease such as syphilis can very easily be wiped out. If, by the open teaching of how to prevent syphilis, the dread late results such as paresis, tabes dorsalis, cardiovascular lesions, blindness, deafness and many others can be totally eliminated, will not something monumental have been accomplished?

And if further evidence is needed to impress the public with the urgent need for instruction in the prophylaxis against syphilis, we appeal to the taxpayers' pocketbook. Kaufman,² in his report of an outbreak of syphilis started by one prostitute, states "Aside from the physical, mental and sociological damage done by this lone fountain of infection, the economic cost to the community is of some concern. If we can say that it costs approximately \$300 to treat a case of syphilis to its conclusion," one can appreciate the saving that can be realized by the teaching of precautionary measures.

CURRENT COMMENT

"IF OUR DEMOCRATIC PROCESSES are to survive, we must have flexible stability and orderly change in society." Comment made by Dr. E. D. Grizell, Professor of Education at the University of Pennsylvania at a section meeting of the National Education Association, on June 29.

At the same Association meeting, Dr. Frank Kingdon, President of Newark University, stated, "'Many persons in this country today are turning more and more to the government to protect them against powerful and entrenched interests.' Turning to the State and government for security, he added, meant that the clash now is not between democracy and autocracy but between democracy and security."—From the news report of the Association's

¹ Auslander, J. *Med Record*, 147:553, 1938.

² Kaufman, R. L. *Cal and West Med* 48:450, 1938.

meeting to be found in full in *The New York Times* of June 30

"SPECIALISM CONTINUES to boom. Recent figures show that more than 70% of the nation's young medical graduates expect to limit themselves to a single field. No doubt at least half of them will forego general practice entirely.

"This indiscriminate growth can't last forever. Already there are signs that a weeding-out process is in the offing.

Most significant is the rise of the examining boards in the various specialties. Until 1927, there were but two such boards. Today there are thirteen (ten of them products of the past six years). The specialist lacking their approval threatens to become, in time as obsolete as yesterday's newspaper.

Such control is not only desirable but inevitable. If specialism had been allowed to run wild it would have found itself mired eventually by lowered standards, government domination, or both.

Fortunately, in the present instance medicine has had the foresight to beat government to the draw. For that reason alone, the movement to certify specialists deserves professional support. —H. Sheridan Baketel, calling attention to "The Handwriting on the Wall" in the July issue of *Medical Economics*.

WHEN I HEAR PEOPLE GOING on about their great love of the poor, I can't help recalling old Victor Hugo's crack that the only good the rich could do the poor would be to get off their backs. And today I think that goes quite as aptly for politicians, philanthropists, social workers and the whole kit and kaboodle of the social minded.

"If this country would go back to real Americanism the most radical social creed on earth as exemplified by Jefferson, Jackson and their kind, we would have no need for social medicine, social security or any other of the 'social abominations' of the New Slavery that Herbert Spencer warned us against more than fifty years ago.

"Back of the social workers the foundations the professional philanthropists and all who have developed into beneficiaries of a vested interest in poverty and dependence are the grab-it-alls whose vested interests and special privileges depend upon the limitation of production and the curtailment of opportunity and competition. Today the cost of relief and the social uplift are the price paid for monopoly. The uplift is a stooge act. —Part of an editorial discourse in the *Illinois Medical Journal* of June, taken from a column in the *Chicago Daily News* by Harper Leech.

MOTHER'S MILK FOR ALL INFANTS

Mother's milk is now obtainable in Indiana for all infants.

St. Margaret's Hospital Guild, a charitable organization cooperating with the Indianapolis City Hospital, is sponsoring a mother's milk station. The station can now supply milk to hospitals or to private physicians on short notice.

The first plan, we are told in the *Journal* of the Indiana State Medical Association was to try to obtain a supply of mother's milk from the obstetrical wards where some mothers had a surplus but this source was so variable that the plan was not successful. Then St. Margaret's Hospital Guild was asked to contribute funds for the purchase of milk. These funds were obtained and mothers who had a surplus of milk were paid for it. This marked the beginning of the St. Margaret's Hospital Guild Milk Station.

Since May 1937 women who have had prenatal care and have been delivered in

the Indianapolis City Hospital have formed the source of supply. These women are examined for contagious diseases including tuberculosis and syphilis. Each day they come to the ward their milk is expressed manually or by electric pump and the milk is then pasteurized and given to the infants on the ward or bottled for dispensing. Several Indianapolis pediatricians have used such milk for their private cases.

When the population of the premature ward is low and the income in milk shows a surplus the surplus is frozen by the quick freezing method developed by the Directory for Mother's Milk Inc. of Boston. The frozen milk by analysis shows that the frozen product does not differ chemically from fresh unfrozen milk even after the lapse of one month. A study of vitamin content by Dr. Walter H. Eddy shows that frozen milk as compared with unfrozen milk has lost none of its vitamins.

HOUSE OF DELEGATES
MINUTES OF THE ANNUAL MEETING

May 9 and 10, 1938

MONDAY EVENING SESSION

May 9, 1938

The session reconvened at 8 15 o'clock in executive session

SPEAKER KOPETZKY The House will be in order

Mr Secretary, is a quorum present?

SECRETARY IRVING No, sir, sixty is a quorum, and there are not sixty here.

At 8 30 o'clock Sergeant-at-Arms reported that a quorum was present

SPEAKER KOPETZKY There being a quorum present, this House is in executive session. This is a special session, this is not a continuation of the session which ended in a recess. This session was called under special orders adopted this morning

I recognize Dr Cuniff

DR. ARTHUR J BEDELL Your marshal reports there are men without badge in the House. What is your pleasure?

SPEAKER KOPETZKY Escort them to the door, and show them the sign that is marked "exit."

SECRETARY IRVING Mr Dwight Anderson, the director of our Public Relations Bureau, is in the room and I think that he should be allowed the privilege of sitting in the House during this Executive Session. He is the man who filters through our information to the press, and he knows what to keep out. Also, the Executive Secretary of the Legislative Bureau, Dr Lawrence, as well as the Executive Secretaries of the County Societies and the Presidents of some of the County Societies are present, and I think they should be permitted to remain.

SPEAKER KOPETZKY It is reported that Mr Dwight Anderson, the Director of our Public Relations Bureau, Dr Lawrence, and the Executive Secretaries and the Presidents of some of the County Societies are present. What is your pleasure?

DR. EDWARD C PODVIN, *Bronx* I move they be permitted to stay

SECRETARY IRVING I second that motion

SPEAKER KOPETZKY It has been regularly moved and seconded that these gentlemen be granted the privilege of the floor. Is there any discussion?

The question was called for, and the motion put to a vote, and unanimously carried

SPEAKER KOPETZKY The floor is extended to these gentlemen

DR. THOMAS M BRENNAN, *Kings* I move you, sir, that the courtesy of the floor be also extended to the son of our President, Dr

Charles Goodrich, Dr Howard B Goodrich, who is a Councillor of the Missouri State Medical Society

The motion was seconded, and there being no discussion, it was put to a vote, and carried

SPEAKER KOPETZKY The floor is also extended to Dr Howard B Goodrich.

56 Report of Reference Committee on New Business A on Medical Advisory Committee to the State Wagner Act Commission

Section 16

DR. E R CUNIFFE, *Bronx* Report of Reference Committee on New Business A on the resolution submitted by Dr Baehr, of New York County, which reads as follows

"WHEREAS, the Wagner Act includes only one physician on a Commission of thirteen members which is to survey and make recommendations concerning medical care for the people of the State of New York, be it hereby

"Resolved, that the Medical Society of the State of New York respectfully request His Excellency, the Governor, to designate a medical committee of distinguished physicians to act in an advisory capacity to the Commission, and be it further

"Resolved, that in making this request, the Society call attention to the effective work of the former Governor's Committee on the Medical Abuses of the Workmen's Compensation Act, whose findings and recommendations resulted in widespread corrective changes in the medical provisions of this law"

Your Committee is heartily in accord with the sense of this resolution and recommends its approval. I so move

Motion to adopt the recommendation of the Committee was seconded, and as there was no discussion, it was put to a vote, and adopted

57 Report of Reference Committee on New Business A on Basic Principles for Permanent Program of State Medical Welfare Service

Section 18

DR. E. R. CUNIFFE Report of Reference Committee on New Business A on the resolution submitted by Dr Marsland, of Westchester County, which reads as follows

"WHEREAS, the State Department of Social Welfare is reported to be considering a general revision of the rules and regulations pertaining to medical welfare service throughout the State, and

"WHEREAS, a committee of the Council of the Medical Society of the State of New York is reported to be conferring with the State Department of Social Welfare to

Continued from June 15 and July 1 issues

mulation of rules satisfactory to both the Department and the Profession,' now therefore, be it

"Resolved by the Medical Society of the State of New York, for the information and guidance both of its own representatives and of the State Department of Social Welfare, that it is the sense of this Society that any permanent program of medical welfare service, to be satisfactory and acceptable to the medical profession in this State, must conform with the following general stipulations

"(1) The medical aspects of medical welfare service should be placed under the effective control and supervision of the organized medical profession, in somewhat the same manner as the medical aspects of Workmen's Compensation Service are controlled and supervised

"(2) The participation of the entire profession in medical welfare service should be encouraged by minimizing the red tape and onerous regulations and by a policy of reimbursing local welfare officers on the basis of local fee schedules in accordance with the prevailing minimum fees in their localities as determined by conference between the local welfare officers and the local county medical society

"(3) The welfare patient should be given effective free choice of physician, under the same protective limitations as are provided for the injured workmen under the Workmen's Compensation Law

"(4) The provision of medical welfare service by local governments through county city or town physicians serving under contract should be actively discouraged and disapproved as a policy

"(5) Provision should be made and standards of eligibility established according to which needed medical care would be furnished for indigent and near indigent families not otherwise eligible for material relief

"(6) The routine use of clinics by public welfare authorities, thus avoiding payment of fees to private physicians, should be stringently limited, and made subject to medical considerations rather than economic considerations."

The Committee endorses this resolution with one or two slight changes. Instead of the basis of the fee being the prevailing local fee schedule, we have written No. (2) as follows

"The participation of the entire profession in medical welfare service should be encouraged by minimizing the red tape and onerous regulations and by a policy of reimbursing local welfare officers on the basis of local fee schedules in accordance with the prevailing fees recommended by the County Society in their localities, as determined by conference between the local welfare officers and the local County Medical Society"

Further instead of using the term "near indigent families," we have inserted the term "medical indigent families," making (5) read

"Provision should be made and standards of eligibility established according to which needed medical care would be furnished for medical indigent families."

As amended the Committee heartily endorses this resolution, and I recommend its adoption

The motion was seconded, and there being no discussion, the recommendation of the Committee was put to a vote, and was carried

58. Report of Reference Committee on New Business A on Review of State Society Expenditures for last Five Years

Section 11

DR. CUNIFFE Report of Committee on New Business A on the resolution submitted by Albany County, which reads

WHEREAS, the work of the Medical Society of the State of New York has grown so extensive that it has become necessary to divide it among committees with substantial budgets and

"WHEREAS the State Committees try to work through the respective County Committees which apparently should also have financial resources, and

"WHEREAS, the County Societies have too little information available on which to base the estimate of the budgets that should be allowed to these respective committees, therefore be it

Resolved that the Medical Society of the State of New York prepare and furnish the County Societies with a detailed statement of the amounts budgeted annually in the last five years to the several Standing and important Special Committees and the detailed amounts expended by them respectively in that time Be it further

"Resolved that the President of the State Society be authorized and directed to appoint a special committee of five members to critically review the expenditures and detail insofar as practical the actual benefits accrued to our membership in particular and the public in general by the expenditures of these funds during the past five years and that the committee be directed to file its report together with its recommendations concerning future spending policies at the next meeting of the House of Delegates Be it further

"Resolved that the Board of Trustees of the State Society be directed to appropriate a sufficient sum to reasonably cover the cost of this study"

The Committee begs to offer a substitute resolution, as follows

"WHEREAS the work of the Medical Society of the State of New York has grown so extensive that it has become necessary to divide it among committees with substantial budgets and

WHEREAS, the State Committees try to work through the respective County Committees, which apparently should also have financial resources and

"WHEREAS the County Societies have too little information available on which to base the estimate of the budgets that should be allowed to these respective committees therefore be it

Resolved that the Trustees of the State Society be requested to critically review the expenditures and detail in so far as practical the actual benefits accrued to our membership in

particular and the public in general by the expenditures of these funds during the past five years and that the committee be directed to file its report together with its recommendations concerning future spending policies at the next meeting of the House of Delegates, and be it further

"Resolved, that the Committee recommends its approval of resolution as amended."

That is, we deleted the part asking that the County Societies be informed of this study, and we also deleted the recommendation for the appropriation of money, and changed the special committee of five to be appointed by the President to the Trustees of the State Society, without any expense.

I move you that this substitute resolution be adopted

The motion was seconded

DR. JAMES F. ROONEY I am interested to know just exactly what burden that places upon the Trustees

SPEAKER KOPETZKY The Chairman of the Reference Committee will answer

DR. CUNNIFFE I will read the statement over again (Dr. Cuniffe read the original resolution)

SPEAKER KOPETZKY Read it as amended now (Dr. Cuniffe read the substitute resolution)

DR. JAMES F. ROONEY That latter motion is submitted by the Reference Committee for the original resolution?

SPEAKER KOPETZKY Right

DR. ROONEY That means the Board of Trustees are to make a summary of the expenditures and the relative value of those and present a report at the next meeting of the House. Is that correct in effect?

SPEAKER KOPETZKY That is correct.

DR. GEORGE W. KOSMAK May I ask why the general public is to be informed of the details of these expenditures?

SPEAKER KOPETZKY That is eliminated as I understood it, but I will let the Chairman answer

DR. CUNIFFE The general public is not to be informed. We have deleted the section where the information was to be sent to all the County Societies. The report is to be made here to the House of Delegates instead

SPEAKER KOPETZKY The report is to be made to the House of Delegates, and no other publication will be made except such as comes to the House of Delegates from the Board of Trustees, and there is no expense entailed. It is a matter for the Trustees to do the work. Is there any further discussion?

The question being called for, the adoption of the substitute resolution was put to a vote, and carried

59 Report of Reference Committee on New Business A on Medical Assistance Bill

Section 21

DR. CUNIFFE Report of Committee on

New Business A on resolution submitted by Dr. Solomon Krell, of the Medical Society of the County of Bronx, which is as follows

"WHEREAS, the Medical Society of the State of New York, adopting a National Public Health Policy, proposed that '2 An immediate problem is the provision of adequate medical care for the medically indigent, the cost to be met from public funds' (Booth Report of 1933), and

"WHEREAS, certain proposals in keeping with the above were enunciated by the Public Relations Committee and the Comitia Minora of the Westchester County Medical Society and approved by its membership, and

"WHEREAS, a bill, known as the Medical Assistance Law, was introduced in the New York State Legislature (Assembly No 2787, Int No 2310), embodying the policy and proposals mentioned above, specifically providing for a method of administration, similar to the provisions of the Workmen's Compensation Act, under medical control and allowing for free choice of physician, therefore,

"Be it Resolved, that this Medical Assistance Bill which failed of enactment be re-introduced this year, be carefully scrutinized, and altered in a manner that will be most valuable to the needy public and the medical profession, and be it

"Further Resolved, that this bill be referred to the Legislative Committee for study and possible revision, with the object of approving the principles set forth therein"

The Committee wishes to offer a substitute resolution as follows

"WHEREAS, the Medical Society of the State of New York, adopting a National Public Health Policy, proposed that '2 An immediate problem is the provision of adequate medical care for the medically indigent, the cost to be met from public funds' (Booth Report of 1933), and

"WHEREAS, certain proposals in keeping with the above were enunciated by the Public Relations Committee and the Comitia Minora of the Westchester County Medical Society and approved by its membership, and

"WHEREAS, a Bill, known as the Medical Assistance Law, was introduced in the New York State Legislature (Assembly No 2787, Int No 2310), embodying the policy and proposals mentioned above, specifically providing for a method of administration, similar to the provisions of the Workmen's Compensation Act, under medical control and allowing for free choice of physician, therefore be it

"Resolved, that the Legislative Committee of the Medical Society of the State of New York be directed to consider and study the best means for providing state-wide medical care to indigents at the expense of the public funds and some report of this study be made at the next annual meeting of the House of Delegates"

I move this substitute motion of the Reference Committee on New Business A

The motion was seconded, and as there was no discussion, the motion was put to a vote, and adopted

DR. CUNIFFE I move the report of the

Reference Committee on New Business A as a whole as amended and with the substitutions.

The motion was seconded, put to a vote, and carried unanimously

60 Medical Expense Indemnity Insurance— Reconsideration of Approval of Reference Committee Report on This Item

Sections 44-66

DR. JAMES F. ROONEY I arise to a matter of importance to the Society. Information has just been given to me by the Director of the Bureau of Public Relations which is a matter of great importance to the House and to its representation in the public press. Does the House care to hear it?

SPEAKER KOPETZKY Will you present it Dr. Rooney?

DR. ROONEY Mr. Anderson has just informed me that in the passage of the Mott Report there is a provision in there relating to indemnity insurance and that the members of the press are extremely anxious to headline this particular part of today's proceedings in the papers for tomorrow. That section of the report reads as follows:

"Patients who are economically independent should finance their own medical bills, as at present. The middle income class, who are independent as regards material needs, but to whom illness is often an unbudgetable and catastrophic calamity, might seek protection in group insurance for hospital expense, and in medical expense indemnity insurance for medical service."

The reporters are very anxious to take some action upon this thing before the press deadline goes into effect. If some change is not made in this resolution, as it was passed by the House, the press tomorrow morning will contain the headlines that the Medical Society of the State of New York declares for medical expense indemnity insurance. Therefore, Mr. Speaker I would request that someone who voted in the affirmative upon this report, which I did not, move to reconsider this section of the report, and to discuss it in connection with the Report of the Reference Committee to whom the question of medical expense indemnity has been referred, and to which committee we have referred several other questions that arose in Reference Committee reports this afternoon. I cannot make the motion because I did not vote affirmatively upon the question. Mr. Anderson tells me it is a matter of great importance so far as the press is concerned that the thing should be settled, in order that we may not be put in a false relation before the public.

SPEAKER KOPETZKY The Chair will entertain a motion to reconsider from someone voting in the affirmative this afternoon.

DR. FREDERIC C. CONWAY Albany I so move.

The motion was seconded by several who said they had voted affirmatively on the question was put to a vote, and was carried.

SPEAKER KOPETZKY The question is pending before the House and open for consideration. The Committee that has the other matter

in charge is Council Committee No. VI, of whom Dr. George Baehr is the Chairman.

DR. ROONEY I move that we refer this section of the Mott Committee Report which the House has passed for reconsideration to that Committee to consider in conjunction with their report in relation to Medical Expense Indemnity Insurance.

The motion was seconded and as there was no discussion it was put to a vote, and carried.

61 Report of Reference Committee on New Business B on Directory Listing of Members

Section 26

DR. THOMAS M. BRENNAN A further report of Reference Committee on New Business B on the resolution offered by the Medical Society of the County of New York and presented by Dr. B. W. Hamilton, reading as follows:

"WHEREAS the directory of the American Medical Association lists its members in bold faced type, and

"WHEREAS, many non members of the Medical Society of the State of New York have expressed a willingness to conform to the Principles of Professional Conduct though being unwilling for economic reasons to join the Society

"Therefore Be it Resolved that the names of members of the Medical Society of the State of New York shall be printed in the Directory in bold faced type, and

Be it Further Resolved the non members signing an agreement to abide by the accepted Principles of Professional Conduct shall have an appropriate symbol placed after their names."

Your Reference Committee on New Business B approves this resolution, and I move its adoption.

The motion was seconded

DR. GEORGE W. KOSMAK I would like to correct that statement. These names are not printed in bold faced type in any of the directories that I know anything about they are printed in capitals.

SPEAKER KOPETZKY In other words, the Reference Committee misnamed the case.

DR. KOSMAK It makes a great deal of difference in the publication of these items. Having them in bold faced type means another font and increases the expense of publication. I see no need for this. The American Medical Association Directory carries these names in simple capitals and it seems to me that is all that is necessary. You do not need a bold faced type which would be in another font.

SPEAKER KOPETZKY You have it in your province to make an amendment, if you so desire.

DR. KOSMAK I move to amend so that the resolution will read "in capitals instead of "bold faced type."

SPEAKER KOPETZKY Do you accept that change?

DR. BRENNAN I do

SPEAKER KOPETZKY Therefore, it is a part

of the original recommendation You had the right to do that, I presume, having consulted your Committee in absentia (Laughter) Is there any further discussion?

DR. EDWARD M. COLLIE, JR., *New York* The proposal before us is not that we distinguish members of the State Society and the constituent County Societies from non-members, as is done at present by the use of asterisks, but that we print in capital letters the members of the Medical Society of the State of New York, and then that we have two other categories, namely, those who give their assent to the Principles of Professional Conduct and then a remaining class of goats who do not. Do the members of the House, if they seriously entertain this proposition, realize that in doing that they are guilty of a constructive libel—it may not only be a constructive libel but it may be an actual libel?

There is another objection the middle class, those who are willing to subscribe to the Principles of Professional Conduct. Let them be as willing as may be, I wish to remind the members of this House of Delegates, after having sat for many years as a Censor of one of the constituent County Societies, that we have absolutely no power of discipline except over our own membership, yet this resolution would commit us to endorsing and to a certain extent guaranteeing to the public or to those who choose to consult the Medical Directory those names which are put into the intermediate class I hope that the members of this House of Delegates will not commit the Society to any such proposition as that

SPEAKER KOPETZKY Is there any further discussion? Are you ready for the question? Those in favor of the amended recommendation of the Reference Committee, namely, that these categories be printed in the Directory, with the members of the State Society printed in capital letters, kindly say "Aye", those opposed, "No" Your amended resolution is lost Therefore, the original resolution comes before you Those in favor of the original recommendation of the Reference Committee's report say "Aye", those opposed "No" The original resolution is also lost

62 Reconsideration of Approval of Report of Reference Committee on New Business B on Ex-Mental Hospital Patients a Menace as Automobile Drivers

Sections 15-49

DR. BRENNAN Report of Reference Committee on New Business B on resolution presented by the County of Monroe in regard to the "Menace of Ex-Mental Hospital Patients as Automobile Drivers" Earlier in the session your Reference Committee on New Business B approved this By vote of the House it was sent back to the Committee for further discussion I will read the resolution

"WHEREAS, in the State of New York there are annually admitted to the State Mental Hospitals approximately fifteen thousand patients,

and 45 per cent of these are discharged or paroled, and

"WHEREAS, a large number of those discharged or paroled are automobile drivers, many of whom are a potential menace, be it

"Resolved, on the recommendation of the Committee on Nervous and Mental Diseases that the Medical Society of the County of Monroe urge that some measure be had requiring the notification to the Motor Vehicle Bureau, of all patients discharged or paroled from State and Private Mental Hospitals in the State of New York, so that appropriate action may be taken by the Motor Vehicle Bureau, and

"Be it Further Resolved, that a copy of this resolution be sent to the Council of the Medical Society of the State of New York."

Your Reference Committee on New Business B is in entire accord with the suggestion included in this resolution However, it realizes that some modus operandi must be worked out whereby the purposes of the resolution become effective

Your Committee approves the resolution and recommends that it be referred to a Committee, special or otherwise, which will in conference with the counsel of the Society consider how best to bring about the intent of this resolution

I so move

The motion was seconded, and there being no discussion, the motion was put to a vote, and the recommendation of the Committee adopted

SPEAKER KOPETZKY There is nothing further pending in your Committee?

DR. BRENNAN Nothing further

63 Report of Reference Committee on Report of President

Section 6

SPEAKER KOPETZKY Reference Committee on the Report of the President

DR. JOHN L. BAUER Report of the President has been carefully studied by your Committee They wish to record that they have found the work of the Society, during the past year, carefully and successfully carried out The various officers and committees have given unstintingly of their time. Their activities have been productive and have advanced organized medicine in its many phases In this report we find six recommendations, four of which are numbered The fourth, however, contains three recommendations, and we shall report on each separately

The first recommendation reads "In the interest of increasingly representative government Active officers and committee chairmen of a County Society or those who having recently thus served are still identified with Society activities can usually best represent the Society in the House of Delegates Where the delegation is large or of moderate size this is easily accomplished if the County Society perceives the wisdom of such a policy, as is often the case When the delegation is small, it is

more difficult but the wisdom is still apparent and the possibility even in a delegation of one remains. *We therefore recommend* that the House of Delegates formally suggests the adoption of such a policy to each and all County Societies."

Your Committee is in accord with the thought contained in this recommendation. We realize that in many Counties the policy already exists. While the suggestion cannot be made mandatory, we feel that it would be for the best interests of Organized Medicine and so recommend.

I believe in this instance no motion is in order Mr Speaker

The second recommendation reads as follows "In the interests of providing experienced replacements in the service of the State Society by those who can serve for a period of years we *recommend* the policy of integrating a studied gradual increase of younger men in the activities of the State Society, without specification, rule or limitation as to age eligibility

Again we acknowledge that the recommendation is apparently for the best interest of the State Society and to which no valid objection can be raised. We also recommend it.

I believe no motion is in order

With the permission of the President, we considered the fourth recommendation before the third, feeling that the third might be more or less dependent upon the action that the House of Delegates might take on the fourth.

The fourth recommendation properly includes only the first eight and a half lines as follows "It becomes increasingly apparent that our income from dues may not be sufficient for this provision (Rec. 3) and other necessary provisions for our membership (dues are less than three cents per day per member). Therefore we *recommend* that the state assessment upon members be increased by at least two cents per day"

This recommendation is productive of much thought and we are led to say a few words which we hope will clarify the need for extra State dues

You must all agree that the time has unquestionably arrived when Organized Medicine needs to take off its coat and go to work. The past we cannot recall. We may have delayed overlong. The future will be too late. Now in the present we must act. It is now or never. In order to meet the many plans which are constantly arising to shackle the medical profession and make them subservient to political expediency interfering with the interests of the public sick, as well as with the standards of practice and the liberty of the physician—and all of the arguments are well known to everyone—we need a great deal more money. We recognize that nearly \$160,000 passed through the Treasurer's hands this year. We offer no criticism of how it was spent. If all of this money every dollar were to be expended for publicity alone at this time, it would not be sufficient. We need much more to educate the public and that includes the Foundations which might later swing over to our side and also the high officials, not overlooking the President of the United States to

arouse the public to work for themselves and Organized Medicine by placing in their hands every weapon and every truth which we possess—and that would make an active group of those favorably and intelligently inclined out of a passive group and would also recruit to our support those who may be in opposition because of ignorance of misrepresentation to be ready to meet future emergency to be prepared to inform every legislative or congressional representative at a moment's notice, to be equipped to go into the courts if necessary, to be represented by the best legal talent, to be assured for every possible need of militant aggressive or passive defensive action, we need money. We have got to uncover the truths to inform the public so thoroughly that they will recognize the unsatisfactory medical service, the overwhelming expense of such service and the demoralizing influence upon the physician of any form of dependent practice, of the government bureaucracy type—and we have got to be stronger than the political schemers. If a poor hod-carrier can contribute \$143 out of his \$1300 yearly income, if the bricklayer gives up \$200 out of a possible \$2600 earning for the year if a motion picture operator after preparing by study and practice and after waiting for a vacancy, then is compelled to pay \$750 as a mere initiation fee and thereafter \$200 a year out of a salary of \$3000—and they do—is it too much to ask each member of our State Society to pay \$18 a year dues or assessment, giving our Society approximately \$270,000 a year income? The exigency demands immediate action. There are some members who will not understand and may resign. There are perhaps some who want everything for little or nothing who may resign, but the majority of the members will stand by and rejoice that the great Medical Society of the State of New York is setting an example for the entire United States and is preparing for and going into action. In this time of opportunity and hazard we should not be looking for only an increase of approximately \$3, or a total of \$18 we should be unanimous in our recognition of the need for \$25.00-\$50.00-\$100 from each member. The osteopaths have contributed in the past as much as \$100 in a year for lobbying. The chiropractors have recently been heavily assessed, reports giving it about \$100 each. We do recommend and move that the dues be increased to \$18 per year

SPEAKER KOPETZKY That motion of the Reference Committee is now before the house. Dr. Louis H. Bauer brought in a report this afternoon recommending that the dues be not increased. That was laid on the table pending the reception of this report, and now the entire matter of the assessment for the coming year is in your hands to determine. The Chair recognizes Dr. Rooney

DR. JAMES F. ROONEY If I had closed my eyes a little while ago I should have thought that I had been listening to a fireside talk. I am not moved by what the bricklayer pays or what the plasterer pays to the Union to support walking delegates and the like. I am not interested in what the quacks pay to try to push legislation through the Legislature to

entitle them to all the privileges of Medicine I know what the chiropractors pay every year I know that twenty years ago they brought a package of \$27,000 in one dollar bills into the last session of the Legislature to try to bribe the leader of the majority, and I know exactly where that fellow went with his \$27,000

Today the medical profession is taking care of about fifteen to eighteen per cent of the population of the United States for little or no pay Since 1930 every physician has experienced at least a drop, except the extraordinarily fortunate men, of about forty to fifty per cent of his total income We are not sure that we may not experience another drop in our income

The Board of Trustees are united in believing that there should be no increase in dues in this Society The Board of Trustees are united in feeling that as a matter of fact if there has been anything done there has been too wide an extension of activity over too wide a surface, and not deep enough The Board of Trustees are united in feeling that now, to say the least, is not opportune to raise dues The Board of Trustees see no immediate emergency, nor do they see any possible likelihood whereby this Society could raise enough money to compete with the highly financed propaganda agencies emanating from the District of Columbia Why compete with them? The thing to me, on the very face of it, seems ridiculous Eight dollars more from each member of this Society means \$90,000 additional, to be spent for what? More paid officers? More jobs? More support for—well I shall not use the comparison?

I hope, gentlemen, with everything that I have in me that you will keep in mind not just those of you who are here but the component members of your County Societies who in many of the rural districts today are reduced in a certain way to the sort of situation they had to meet when they began the practice of medicine forty or fifty years ago trade and barter, and where even eight dollars a year may make the difference between a reasonable degree of satisfaction and the determination that they are paying too much for what they think they get from the State Society Let us not do that to our members (Applause)

SPEAKER KOPETZKY We have thus far proceeded with a certain degree of regularity, and I beg that we continue There are two motions one from the table and one a recommendation I am ready to hear the motion that should be considered before the House. I took the address of the Trustee as an introductory to this debate

DR. JAMES F. ROONEY I do not want to make the motion that I intend to make now I feel that this is a matter that should have free and open discussion I do intend to make a motion when the House has had an opportunity of discussing the report of this Committee

SPEAKER KOPETZKY Very well! If there be no objection, we will then proceed as if we were in a Committee of the Whole, and we will discuss without a motion

DR. THOMAS H. CUNNINGHAM Dr. Rooney has tried to voice the feelings of the Board of Trustees I think that I can quite safely voice the feelings of a minority of the Council I

am perfectly sure that that minority is very much opposed to any advance in our dues I say this with all respect to our beloved and distinguished President I do not think it is necessary that we should do this It is perfectly true that at the present time our General Manager has an amount of work which it may seem quite impossible for him to handle It is because we are not yet functioning under the bare skelton-like machinery which the Revision Committee planned last year We still are in a transition stage

To demonstrate what I mean, I would like to say this The Revision Committees—and I was on both—had in mind the elimination of all committees They had in mind the focusing of all activities in the Council At the present time, if you will read the report of the Council, you will find that we have thirty-five committees With that number of Committees there necessarily is a great deal of work which is quite superfluous, and which can be and will be eliminated as we go along

I am perfectly convinced, and as I said before, I am quite sure that I am speaking for the minority when I say that our dues will amply finance the activities of this organization provided we have a frugal, careful, thoughtful administration, when we have eliminated all of these tag ends which, by the way, this House of Delegates is largely responsible for Last year this House of Delegates passed, for example, that the activities of the Public Relations Committee be continued for another year That costs \$20,000 We are suggesting now that those activities be merged with the Journal Publication enterprise We can effect economies if we are left alone There is no excuse for the employment of other officials until we know that we need them, and there is no excuse for raising our dues until we know that we need an increase in dues

SPEAKER KOPETZKY Is there any further discussion?

DR. THOMAS A. MCGOLDRICK, Kings It goes without saying that a very strong treasury, strong in the sense of its contents, is always something desirable, but it seems to me that it should be gathered not for a possible source of danger but for direct objects and direct purposes

It seems to me that when we compare the Medical Society of the State of New York and the medical profession of the United States with organized and disorganized labor, as has been said here, seeking simply increased material remuneration, we are forgetting the fact that this is a profession which is possessed of something It is possessed of something of value It is possessed of something of great worth It is possessed of something which everybody wants, and when these officials or representatives of officials at Albany or at Washington succumb to the blandishments of these Foundations and groups of social workers, and forget these assets, it will be to their own loss, and we, on the other hand, do not need money so much for that purpose.

If a crisis be imminent, we have a reserve fund in this Society which could be called on

for just such purposes, which would be a lot more efficacious than increasing our dues by \$8 a year, even though \$120,000 additional a year would be gotten from that increase in assessment. We have that as a resource for the medical profession itself.

On the other hand, the Trustees, the custodians of this money and the finances of the Society, have not approved of this proposed increase. It seems to me that before we gather in more money for a treasury we should have it laid out very definitely to us what that money will be used for. I respect the report of the Committee and all the possibilities that the money may be used for but there is nothing definite in that. Do they mean more Council? Do they mean more officers? Do they mean more assistants to General Managers?

As the Chairman of that Committee himself has said, he does not know that \$8 increase in assessment would be enough. It might have to be \$25 it might have to be \$50, it might have to be \$100, or it might have to be less. So without proper ground work, without a report of those qualified to give to us what that money would be used for, and how much would be needed, we would place an additional assessment of \$8 per year on our members. Why \$8? Because it means two cents a day additional? I feel that is a rather weak argument for \$8 more a year. I think if those to whom we have entrusted the financial conditions and affairs of the Society the Trustees of the Society come to us with a budget stating what exactly is needed, then every effort should be made to meet it, but until that time I would oppose—and I hope everybody here will be opposed—to such an increase in the dues (Applause)

SPEAKER KOPETZKY I am asking the President, since it is his address, to close the debate, and then I am ready to hear a motion.

PRESIDENT GOODRICH Some years ago in the golden days of prosperity so-called, this Society raised its dues from \$5 to \$10. The then President who spoke most eloquently and vociferously for that, was our very beloved Orrin Wightman. I was a delegate from Kings and I opposed it with all my powers because I felt it would, perhaps hamper some of our members in Kings. I have learned a good deal since that time. After the meeting Dr Wightman came to me and said "Goodrich, you did well, but you are a five dollar man, aren't you? I have learned much since then, and much more than I can tell you in the brief time that I wish to burden you with my ideas on this thing but I have lived very close to the Trustees during two years as Treasurer and a year as President Elect and a year as your President. I met with them and discussed matters with them, and they have been kind enough to listen to my prattlings. However I have yet to see any intention, any motive, any spirit in the Board of Trustees that would permit them even to think of appropriating money until they had it in hand, and so it is very ridiculous of us to think of not raising the dues until the Trustees tell us what it is needed for. They only take the recommenda-

tions of the Council as to appropriations, and then they will not raise those appropriations, they will only reduce them or approve them. As a matter of fact, in watching the workings of the Society, I find that every Budget Committee—and I have served on six—every Board of Trustees, and very often the Executive Committee in the old days, and the Council today, hesitate to do what we all feel should be done because we cannot afford it, we have not the money. As Treasurer I had to warn the Executive Committee several times in the Executive Committee meetings that we must not get too near the margin, we must save something every year, and so we should. I believe our dues should be large enough so we can save something fairly handsome every year. I believe they should be ample for appropriations, for any emergency excepting perhaps the greatest of emergencies when our general fund in vestment might have to be liquidated. But I have learned so much that I cannot tell you about it here tonight. All I can say is that it is my earnest conviction, my very steadfast conviction that it may be late, as Dr John Bauer has said, but it is one of our last opportunities to so finance ourselves that we can do what we need to do in the near future, if the reports of the two investigating committees (one in Congress and one in our own Assembly) do the work that we can very reasonably expect them to do.

I do not count too much on this House of Delegates passing the vote to increase the dues. I am glad to have you thinking about it. I want to have you thinking about it earnestly. I want to have you do just what you think is right. My dear friend, Dr Ross, now a Trustee once met me as I came off the platform from heading a disastrous set of recommendations when a President was recommending some very, very radical changes in our setup. I told him I thought I had failed, that I did not manage to get the recommendations through. He said, "Don't worry. They will all be through in about five years' time." And they were, and they are! The fact that they are shows, really demonstrates, where we stand today. Those recommendations of Jim Vander Veers when he ended his presidency are every one factors in our present organization. So I confidently believe that one day we will raise our dues. My confident conviction is that at the present time we have an excellent opportunity to almost, if not quite, move wisely and in time.

SPEAKER KOPETZKY I am ready to hear a motion.

DR. ROONEY I move—

SPEAKER KOPETZKY As a substitute for both?

DR. ROONEY No. Permit me to make my own motion, Mr Speaker

SPEAKER KOPETZKY I certainly could not stop you.

DR. ROONEY You have tried it a good many times and now you confess your failure.

I move that the recommendation of the Committee lie on the table indefinitely. I do that

for this reason I do not feel that this House should disapprove the recommendations of its Past President who has worked so hard and so earnestly I disagree with his opinion, but I do not think we should disapprove of his recommendation, and that is the reason why I make the motion to lie on the table indefinitely the report of the Reference Committee recommending that the dues be raised to the sum of \$18 a year

The motion was seconded, was put to an "Aye" and "Nay" vote, and as the Chair was in doubt it was put to a rising vote, and the motion to table was declared adopted

SPEAKER KOPETZKY The motion that was put before the House this morning is now before you that the dues be not raised The assessment for the coming year is under consideration, as there must be legislation regarding that assessment.

DR. JAMES F ROONEY I move you in relation to that, that it be considered at the same time that we consider the report of the Reference Committee on the Report of the Board of Trustees, which makes an identical recommendation.

SPEAKER KOPETZKY If there is no objection, that will be the procedure

DR. JOHN L BAUER Continuing the Report of the Reference Committee on the Report of the President

The fifth recommendation in the same paragraph as the fourth begins on the ninth line as printed and reads as follows "We also recommend that the Trustees be authorized to budget whatever income from the Society's investments may in their judgment be needed to properly serve the Society—thus rescinding the action of the House forbidding the use of such interest"

Your Committee favors this recommendation, and we move that the income from the Society's investments may, at the discretion of the Board of Trustees, be used at any time in whole or part to properly serve the Society I so move

The motion was seconded, and there being no discussion, it was put to a vote, and adopted.

DR. JOHN L BAUER The sixth recommendation includes the last five lines of the paragraph which reads as follows "We also recommend that no investment principal be expended at any time except after majority vote approval of the House of Delegates after recommendation by both the Council and Board of Trustees"

Your Committee feels that the recommendation places too great a restriction on the House of Delegates since it would require both the approval of the Council and the Board of Trustees and that would constitute a double veto We recommend that this be changed to read "We also recommend that no investment principal be expended at any time except after majority vote approval of the House of Delegates after recommendation by either the Council or Board of Trustees"

We move the adoption of this recommendation of your Committee.

The motion was seconded.

DR. ROONEY The curious thing is that this motion as submitted by the Reference Committee gives practically equal power to the spending group as to the saving group It says either the Council or the Board of Trustees The Board of Trustees might oppose something, and may state definitely that they were opposed to it and give their reason, still it would give the Council in matters of finance an opportunity to entirely overrule the burden that is placed upon the Board of Trustees by the Constitution and By-Laws

The Constitution and By-Laws state that the Trustees shall have charge of all of the financial affairs of the Society I move to amend If there is an objection to the question of the double veto power, there will be no veto I will predict although I am neither the seventh son of the seventh son, nor was I born with a caul over my head I will prophesy there will not be any veto in relation to spending by the Council, but there is very likely to be one by the Board of Trustees I will move then to amend by substituting the words "Board of Trustees" for "Council" and eliminating the word "Council"

DR. THOMAS A MCGOLDRICK, Kings I second that amendment

SPEAKER KOPETZKY The amendment is before you for consideration Is there any further discussion? Question on the amendment, those in favor of the amendment will kindly say "Aye", those opposed, "No" The amendment is carried

The amended recommendation is now before you for adoption. Those in favor of the amended recommendation, will kindly say "Aye", those opposed, "No" It is carried, it is a vote.

DR. JOHN L BAUER If I may say just a word on the last recommendation, as our Committee understand it, the matter of investment principal—

SPEAKER KOPETZKY That has been passed?

DR. JOHN L BAUER That has been passed.

SPEAKER KOPETZKY Then there is nothing before the House

DR. JOHN L BAUER Very good!

Your Committee now considered the third recommendation, which is as follows "In the interest of expanding our service to our membership, we recommend the employment of a liaison officer who shall serve the House of Delegates and Council in the cooperation and consideration of common problems in our relations with State Departments, welfare organizations and Foundations, and in assisting the General Manager and Executive Officer in any way the Council may direct. We also recommend that his qualifications as to eligibility be exactly those prescribed for the General Manager in our By-Laws"

Your Committee is in hearty accord with the suggestion, and we feel that it has considerable merit If the recommendation to increase the dues prevails, the employment of a liaison officer can properly be left to the Council with the approval of the Board of Trustees We so recommend and now move its adoption

SPEAKER KOPETZKY Wait a minute! The Chair is certainly confused in this connection. Here is a substantive clause "If the dues are increased," and then they make this recommendation depending upon that. Will you please make an affirmative declaration so that the motion can be put to the House? Do you recommend the employment of a liaison officer now that you know the temper of the House in reference to dues?

DR. JOHN L. BAUER Can I speak for the Committee?

SPEAKER KOPETZKY Yes sir

DR. JOHN L. BAUER The Committee expressed itself as follows if the dues were increased.

SPEAKER KOPETZKY But they have not been increased so therefore, what is your recommendation?

DR. JOHN L. BAUER May I speak Mr Speaker? If the dues were increased, of course that recommendation might be one of the things that the Society or the House of Delegates had in mind for an increase in dues, but if the increased dues failed the Committee felt with reorganization, and with perhaps money saved on the JOURNAL, the Directory, and so on and so forth, if such a liaison officer were desired you might wish to consider his employment from other funds. That is the meaning of that wording, and I will repeat it if you so desire.

SPEAKER KOPETZKY I have it now What is your pleasure?

DR. THOMAS H. CUNNINGHAM I would like to speak for the minority group on the Council although I have no real authority to do that. However, I am quite sure that they will agree with this that at the present time there is no reason for such new officer.

In the report of the Council Dr. Irving spoke of the fact that we were all settling down into harness. We are not yet functioning under our new machinery however. We are still in that transition stage. No one knows at this time whether or not we need any more full time officers. I am going to assume that if the requirements of this new officer are identical with those of our General Manager that the salary also will be identical. I do not think that at the present time our Society is in any position to expend \$12,000 or \$13,000 a year more, and neither do I think that it is necessary for this item.

DR. JAMES F. ROONEY I move that this recommendation lie on the table indefinitely.

DR. WILLIAM H. ROSS I second the motion. The motion was put to a vote, and carried.

DR. JOHN L. BAUER I move the adoption of the Reference Committee's report as a whole, with the amendments, substitutions, and the various items that were laid on the table excepted.

The motion was seconded, and put to a vote and was carried.

SPEAKER KOPETZKY We thank you, sir

DR. JOHN L. BAUER May I continue with the report on the Address of the President?

SPEAKER KOPETZKY Yes, please do

DR. BAUER Report of Reference Committee on Address of the President

Your Committee studied this report and found a recommendation in the first paragraph of page three, referring to the request from the American Medical Association for a survey of medical care, to be furnished in each County of our State, a part of a nation wide survey.

"Your President recommends that every possible effort be made to cooperate with the national organization in this admirable work, details of which must be managed by some specially designated persons at headquarters."

Your Committee approves of the recommendation and moves that it be adopted.

The motion was seconded and as there was no discussion, it was put to a vote and adopted.

64 Report of Reference Committee on Address of President Elect.

Section 7

DR. JOHN L. BAUER Report of Reference Committee on Address of President Elect William Groat

Your Committee wishes to report very favorably upon the entire address. We feel that emphasis has been correctly placed upon certain particular matters, such as financial control, simplification of Committee assignments, more expeditious dispatch of the business of the Society by the Council, clearer definition of the duties of full time officers and employees as well as the definition of the relations of the Board of Trustees and Council to financial matters and policies.

We recommend the adoption of this report and I so move.

The motion was seconded, and as there was no discussion, it was put to a vote, and adopted.

SPEAKER KOPETZKY I thank you, Dr. Bauer, in the name of the House of Delegates.

65 Report of Reference Committee on Council Report No VII

DR. JAMES M. DOBINS I am reading this for Dr. John D. Carroll, The Chairman. It is the Report of Reference Committee No. VII on the Report of the Council

Nursing in New York State

The State Nurses Association sought to set up licensing of all nurses in two groups, the professional fully educated Registered Nurses and a group designated "Nursing Aides" at first and later termed "Practical Nurses." To the Council this seemed a step in advance toward clearing up an anomalous situation and the present bill was formally endorsed to the State Nurses Association.

The Council suggested that if future revisions be needed it seems advisable that the State Society be accorded the first opportunity to pass on legislation that may be planned. This suggestion was cordially accepted by the President of the State Nurses Association.

The bill as presented was passed at the recent

session of the Legislature, hence your committee approves of this report of the Council. I move the adoption of this report

The motion was seconded, and there being no discussion, was put to a vote, and adopted.

Delegates to the American Medical Association

DR. DOBBINS Official information came that re-apportionment of representation in 1937 allows New York two more Delegates beginning with June 13, 1938, the next meeting of that House of Delegates. The Council designated the two first on the list of Alternates for 1938-1939 to act as Delegates. This is the smaller class of seven and it will be necessary in 1939 to elect nine in that class for 1940-1941, thus equalizing the two classes.

A formal invitation was extended by the Council to the American Medical Association to hold its Annual Meeting in 1940 in New York City.

Your Reference Committee approves of this report.

I move its adoption.

The motion was seconded, and there being no discussion, it was put to a vote, and adopted.

Exchange of Delegates with Connecticut and New Jersey State Societies

DR. DOBBINS After formal invitations had passed between the New York Society and these two State Societies, the official designations are now complete for the forthcoming three State Society Annual Meetings in 1938.

From Connecticut

Delegates

Dr Stanhope Bayne-Jones, New Haven
Dr D Chester Brown, Danbury

Alternate Delegates

Dr Herbert Thoms, New Haven
Dr Walter R Steiner, Hartford

To Connecticut

Delegates

Dr Charles Gordon Heyd, New York
Dr Nathan B Van Etten, New York

Alternate Delegates

Dr Floyd S Winslow, Rochester
Dr William A Groat, Syracuse

From New Jersey

Delegates

Dr William J Carrington, Atlantic City
Dr Thomas K. Lewis, Camden

Delegates

Dr William A Groat, Syracuse
Dr Frederic E Elliott, Brooklyn

Alternate Delegates

Dr Edward T Wentworth, Rochester
Dr O W H Mitchell, Syracuse

It was called to the attention of the Committee that last year's Committee considered

sending two Delegates to the Connecticut and to the New Jersey State Medical Society Conventions, but in making the resolution resolved to send two Delegates to the Connecticut State Medical Society, but omitted mentioning sending two Delegates to the New Jersey State Society. Your committee believes that before passing on this portion of the Council Report in order to clear up this point your committee should know whether the Delegates to the New Jersey State Society were approved by the Council.

If so, your Reference Committee recommends the approval of the Council Report with regard to the above named Delegates.

I move its adoption.

The motion was seconded, and as there was no discussion, it was put to a vote, and adopted.

DR. DOBBINS There was a point of inquiry there whether or not the two Delegates to the New Jersey State Medical Society's Convention were approved and appointed by the Council.

SECRETARY IRVING Appointed by the Council, yes.

DR. DOBBINS Thank you.

Nominations for State Department Positions

On official requests there were nominated the following members for appointment by the Commissioners.

Department of Education

To serve on the Board of Nurse Examiners
Dr Nathan B Van Etten, New York, to succeed himself (As alternates) Dr Clayton W Greene, Buffalo and Dr Peter Irving, New York.

Department of Health

To serve on its new Advisory Board on Narcotic Control Dr Homer L Nelms, Albany.

Your Reference Committee approves of this report.

I move its adoption.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried.

County Society Membership

DR. DOBBINS A few requests have come to the Council for permission to hold membership in County Societies other than those of the county of residence or principal office. Exercising its right of discretion, this has been granted where the reason satisfied the Council under the By-Laws, Chapter XV, Section 1 (a).

"Except by approval of the Council of the Medical Society of the State of New York, no physician shall be an active member in a County Medical Society other than that of the County in which he maintains legal residence or has his principal office."

Your committee approves of the Report of the Council.

I move its adoption.

The motion was seconded, and as there was no discussion, it was put to a vote, and adopted.

Miscellaneous Who's Who Among Physicians and Surgeons

DR. DOBBINS The Council recorded its opinion that there is no objection to physicians allowing themselves to be listed in this way and that the decision belongs entirely to the physicians themselves.

Your committee recommends the approval of this report.

I move its adoption.

The motion was seconded, put to a vote, and carried.

Reimbursement for Official Travel Expenses

Certain bills reached the Trustees after the statutory thirty days from the time they were incurred, and also after the three months further extension which the Board can allow for cause, and on suggestion of the Trustees, the Council recommends that the By Laws be suspended to allow reimbursement to

Dr William D Johnson Carfare to and from 1937 Atlantic City American Medical Association House of Delegates \$37.00

Dr John H P Cummins Travel expense attending Executive Committee and Council meetings 1936-1937 \$184.00

Dr Clarence V Costello Travel expenses 1937 Scientific Work Committee \$63.00

At the last meeting of the Council a correction was made in one expense account and another account added. Such was approved by the Council and by the Chairman of the Committee to which this matter was referred.

To the House of Delegates Gentlemen

Under Item No 24—Page 26 of the Annual Reports the following corrections should be made

Dr John H P Cummins An error was made in the figure of this item under Reimbursement for Travel Expenses. This should read \$219.40 instead of \$184.

The addition of the following under Reimbursement for Travel Expenses

Dr Edward E Haley Travel Expense 1937 Committee on Provision of Medical Care \$35.20

Your committee believes these are isolated instances of neglect in presenting bills and urges that in the future the physicians be more prompt in presenting their expenses, also that the central administrative office of this Society notify each physician concerned to present their expense accounts within the time prescribed by the By Laws at the beginning of each administrative year.

I move the adoption of the report.

The motion was seconded.

SPEAKER KOPETZKY The motion is on the adoption of the report. If you adopt it, it will then require another action on these items to make it legal.

DR. JAMES F ROONEY I have no objection, nor I think have the Trustees, to authorizing

the payment of these accounts but we are today bound by the rule that is only necessary in any business administration that all bills incurred that are authorized shall be presented within a definite time for payment. The reason for these bills not having been paid was because they were not presented within that time limit. If the House of Delegates now adopts the report of the Committee, as it has already been given permitting any individual who incurs expenses to present that account any time within the current year and prior to the next administrative year, neither your Board of Trustees nor your Treasurer is going to know where they are at.

The present rule is that all bills of this sort shall be presented for approval to the Board of Trustees within sixty days.

SPEAKER KOPETZKY Thirty days

SECRETARY IRVING Thirty days, and then ninety days extension, 120 days in all

DR. ROONEY One hundred twenty days in all is quite right but they must be presented and the Board of Trustees must receive them within sixty days in order that they may be acted upon and paid within that period.

I would suggest, if the Reference Committee desires they might so amend this resolution of theirs, to provide that it contain that provision.

DR. DOBBINS The Reference Committee was informed of the necessary details as has been explained by Dr. Rooney, but for some reason or other chose to overlook—and we used the word—the neglect in presenting these bills by these men. The doctors who served on this committee saw no sense in standing on ceremony and thereby incurring the enmity of any of these men. They did, however suggest that the central administrative office of this Society notify each physician concerned to present his expense accounts within the time prescribed by the By Laws at the beginning of each administrative year. The Committee felt that was the duty of the central administrative office.

DR. ROONEY That is a different thing

SPEAKER KOPETZKY What is your pleasure? A motion has been made to adopt this Committee's report. Those in favor kindly say "Aye" those opposed, "No." It is a vote.

It is now necessary to authorize the payment of these bills to lay aside your By Laws by unanimous consent, otherwise it cannot be done. Is there any objection?

(There was no response.)

SPEAKER KOPETZKY There being none, I consider that the By Laws have been so laid aside that the Trustees are authorized to pay these accounts which have been neglected through the oversight of somebody to be paid. What is your pleasure?

DR. CHAS. GORDON HEYD I so move that the Trustees be authorized to pay them.

DR. JAMES F ROONEY I second the motion.

There being no discussion, the motion was put to a vote, and was carried.

SPEAKER KOPETZKY It is a vote and it is the order of this House of Delegates

that these bills be paid, and it has adopted the report that hereafter the Administration will know in advance what the accounts are, otherwise no such special action can be taken

DR DOBHINS May I now move the adoption of the report as a whole?

The motion was seconded, put to a vote, and carried

SPEAKER KOPETZKY We thank you, sir!

66 Report of Reference Committee on Report of Special Committee on Matters Pertaining to Medical Care

Sections 44-60

DR GEORGE BAEHR, *New York* Report of Reference Committee on Council's Report No VI, subject "Medical Care"

"WHEREAS, a large number of people amounting today to almost forty per cent of the population, are not medically indigent when well and employed, but are financially unable to budget and save for the payment of medical bills for major catastrophic illnesses, and

"WHEREAS, in the event of such major illnesses, these people are unable to pay their medical bills and are therefore frequently obliged to accept the services of their private physicians without any possibility of payment, or are obliged to accept free medical care at public expense, and

"WHEREAS, medical expense indemnity insurance furnishes funds in the event of major illness with which to liquidate the patient's obligation to the private physician for medical care, and

"WHEREAS, on the contrary all health insurance schemes contract to provide medical services by physicians employed by the Association or Governmental Agency and subject to such control, be it hereby

"Resolved that the Medical Society of the State or New York hereby approves the principle of medical expense indemnity insurance, under the following reservations designed to safeguard the public and the medical profession

"(1) That such medical plans, in the opinion of the Medical Society of the State of New York, serve to maintain and raise the standard of quality of medical care,

"(2) That they provide a fair and reasonable remuneration on a basis comparable to the Workmen's Compensation Schedule,

"(3) That they provide for free choice of physician by the patient,

"(4) That they do not involve directly or indirectly the interposition of a third party as regards medical matters between patient and physician, and

"(5) That they be operated on a non-profit basis and be organized in small local non-Governmental units"

I move to adopt these resolutions

The motion was seconded

SPEAKER KOPETZKY. The motion has been made and seconded to adopt this set of resolutions. We will take them up, if you please, *seriatim*, and adopt each one, or adopt none, as you please

DR STANLEY E ALDERSON, *Albany* As a member of this Reference Committee, I wish to register my dissent from this report

SPEAKER KOPETZKY It is noted on the record

DR JAMES F ROONEY I think that no one can have any question with the prologues to the proposals that are made by the Reference Committee. I do not feel that we can take this thing up piece-meal because I think the report either falls or stands as a whole.

The proposals made by the Chairman of the Reference Committee tonight institute the exact mechanism, with only certain minor differences, of the scheme for compulsory health insurance. The only difference is that it excludes intermediating governmental agencies. It sets up a whole system, practically a panel system, under the control of local groups. The moment that is done, within two years the Legislature of the State of New York will take it over as an already going organization and will institute the very thing that I and many others in this Society have been fighting against for twenty-five years

There is no question about the need for some sort of payment being made for this group perhaps, but can we better afford to do what we are doing now with what income we are getting? There is no question about the service that the people are getting. There can be none. I do not think there is any higher quality of medical service in the world than is provided for people in the State of New York or as a whole for the people of the United States. Can we afford to institute a mechanism that within four months can be taken over by the Legislature and converted into a governmentally and lay administratively controlled mechanism?

I am not exaggerating the significance of this. We have the same sort of thing now in a minor way, but the moment it becomes applicable to forty per cent of the population as Dr Baehr has just said, it is only a short time before it can be made applicable to the whole population. We do not know that this forty per cent is going to remain stationary. It may readily enough in three or four years develop into sixty per cent. What is going to happen then?

I sincerely hope and trust that this House will re-recommend back to the Council for further study and for further consideration every plan that has thus far been proposed to this House or may be proposed to this House before its adjournment in relation to this whole question of indemnity insurance, voluntary, compulsory, or of any other nature whatsoever (Applause)

I so move you, Mr Speaker, that this report be referred to the Council for further study and subsequent report to this House of Delegates at its next annual session

The motion was seconded

SPEAKER KOPETZKY A motion to refer is in order. Is there any discussion on the motion to refer? It is the report of a Reference Committee, and the motion has been made to refer it to another body. I think, therefore, it may be discussed on the merits of the reference only and not on the body of the report.

DR. GEORGE BAEHR I merely wish to point out that it seems to me that the House of Delegates is a better forum for such a discussion than the small forum of the Council. The matter is perfectly clear in everyone's mind. I think those who favor or oppose this resolution know now the way they feel about it, and I personally see no reason why action should not be taken by the House of Delegates on it tonight. They have had many years to think about it.

DR. HARRY ARANOW, Bronx Several propositions have been made in the last few years similar to this one. I am not going into the merits or demerits of them.

SPEAKER KOPETZKY We are discussing the question as to whether or not we shall refer. We are not discussing the original question.

DR. ARANOW That lets me out, then.

DR. FREDERIC E. ELLIOTT, Kings This question has been before the medical profession of New York State for at least four years. It was before the House last year and referred to your ad interim Council body. That Council body approved the principle and deferred action beyond that point pending the introduction of a bill in Albany. It has now come before this House. This motion to refer it back to an ad interim body will only delay the time of final action because it will then come back to the House next year. May I warn you that in the interval of the last year and a half the proponents of cooperative medicine persuaded the Law Revision Commission to formulate an amendment to the Insurance Law which would have legalized the buying and selling of doctors' services by any incorporated hospital, by any mutual organization by any organization of employees or by any cooperative organization. Gentlemen, if you temporize with this you are dooming medicine to the hands of venders under lay control. I hope that the proposal to refer will be lost.

SPEAKER KOPETZKY Is there any further discussion?

DR. HOMER J. KNICKERBOCKER, Ontario This is the time when we should consider this thing. We are going to have it put to us whether we want it or not, and if we do not lead we will be led by the nose, probably. If necessary I believe we should go into a committee of the whole for further discussion.

DR. NUNZIO A. RIMI, Kings You are all undoubtedly aware of the tremendous province and strides that have been made in New York City particularly of the Hospital Service Plan, which provides for hospital care to over 650,000 inhabitants of New York City. The success of that plan in New York City has created the formation of commercial private enterprises to furnish medical care for private gain. The Kings County Economics Committee has

received numerous requests for information regarding the attitude of the medical profession in regard to the Associated Physicians Service Plan. If the Medical Society of the State of New York refuses to take the initiative in this work, private concerns will do it for us, and we will have absolutely no control over their actions. The time to act upon that question is now and not to bury our heads in the sand until a later date. (Applause)

SPEAKER KOPETZKY Is there any further debate? Are you ready for the question on the reference? Those in favor of referring this to the Council for further study and subsequent report say so by saying "Aye," opposed "No." The motion to refer is lost.

The question before the House is the adoption of the Reference Committee's report. I am ready to hear discussion.

DR. HARRY ARANOW, Bronx This proposition has been made to the different organizations of the Medical Society of the State of New York from time to time. To me it all boils down to one question. Are you in favor of health insurance or are you not?

This proposition of having a group that will take no pay, but will work for nothing and run an insurance company to suit the Medical Society is far fetched. It is simply a substitute in favor of health insurance. If you are for health insurance, work for it but if you are not in favor of health insurance, then let us not vote for any substitute of health insurance.

SPEAKER KOPETZKY Is there any further discussion?

DR. THOMAS H. CUNNINGHAM My offices are in an insurance building. I have been there for twenty five years. I have grown up with the officers of the insurance company. I know them all quite well. This scheme has been before the Council and it has been debated and argued at considerable length and again I think I may speak for the minority on the Council.

The trouble with this non-profit insurance is that there is not any such thing it won't work. Dr. Aranow was perfectly right when he said that we must decide whether we want health insurance or whether we do not want health insurance. When this proposition was put up to our Council, I brought it up in my home town and I asked the Secretary of the insurance company about it. (By the way it is the seventh or eighth largest in the United States, and it has been in existence for considerably over a hundred years.) I asked the Secretary to look over this prospectus. He did, and burst into hearty laughter. He said "That is just the sort of thing that I would expect a doctor to write, when he was trying to write something about insurance."

"Well," I said "what is wrong with it?" He said, "For heaven sake how do you expect to maintain a non profit insurance?"

"Why we are going to get some philanthropist who will first put up the money."

"That is perfectly all right, as far as it goes, but don't you realize that the more people you insure the more and more money you will have to lay aside in a reserve. For every one

you insure you have to set aside a certain amount of money in order to comply with the laws of the State of New York."

I said, "Yes, but Dr Elliott assures us that when it gets too big we can reinsure"

He said, "With whom?"

I said, "Why you line companies"

"Do you think we are going to do it for nothing? Do you think we are going to tie up our capital for nothing? Do you think we are going to lend you the use of our secretaries and stenographers and our various agencies for nothing? You are just simple-minded if you do. It can't be done. It is exactly like working out perpetual motion. It is absurd"

That is exactly the situation as it is. As Dr Aranow said, we have got to decide here tonight if we want health insurance or we do not want it. This business of dressing it up and calling it non-profit or calling it anything else is bunk, it is just the same old thing.

DR. FREDERIC E. ELLIOTT. I hope that this House will not determine its action in a confused state of mind which does not distinguish between the contract practice of medicine, which all health insurance schemes are, with all of the faults inherent to contract medical practice whether it be under governmental control or not—and incidentally governmental control has been established in all of the alien foreign systems because of the inherent faults of contract medical practice—I hope this House may distinguish between that type of service and what is proposed under this scheme, which is true insurance indemnity the provision of cash for the liquidation of an unexpected loss.

We had, as I mentioned in speaking previously, a hearing before a Legislative Committee, and representatives of the Insurance Commissioner were present, at which time they were prepared to recommend to the Legislature the enactment of this Section IX-C, as it was called in their tentative draft, simply because only the proponents of that system had made themselves vocal to this committee and to the Insurance Commission. Having discovered that that matter was pending, and presenting that fact to the Council, the Council saw fit to commission me as an individual, (although I hesitated to accept that responsibility, I did it) and I appeared before that hearing assisted by Dr Kaliski, Dr Mott, and others. After a more extended argument than we can give you here, we prevailed upon that Committee that the establishment of a true insurance, an indemnity insurance, was a better policy than the establishment of a contract doctor system.

All of the argument about the possibility of the subsequent development of compulsory health insurance upon an indemnity plan is absurd. These people are going to be taken care of by one of three formulae: gratuitous care from the profession, care under some governmental bureaucracy, or care which they obtain for themselves and the remuneration for which is liquidated out of some kitty which is established by the mechanism that we have proposed in this indemnity insurance.

Let me clear up one more point. There are three large companies in the United States who

write reinsurance. Reinsurance is not insurance. A stock insuring company insures initially against a loss. Reinsurance companies stand behind those line companies, and by equalizing over various fields calculate the potential losses, and the very acceptance of a hazard by a reinsurance company is an assurance of the soundness of the plan of the original insurance establishment.

SPEAKER KOPETZKY. Is there any further discussion?

PRESIDENT GOODRICH. It is unquestionably true that some form of insurance to meet the expenses of the physician is necessary at this time to a large body of people who otherwise would not be able to pay the doctor. There have been a good many statements that verged on misrepresentation about this scheme. This is a mutual plan, not a stock plan. This is a plan to have supervision of the election of the boards of trustees of the various groups by the County Society in the County where they live. This is a plan that is not connected with any indemnity to the insured because of unemployment as are compulsory health insurance schemes all. This has nothing to do with the payment of salaries for control or profit for those who have an interest in the business. There are mutual life insurance companies doing a tremendous work in this country for the people, and protecting them with large surpluses. I have no doubt whatsoever that just such things may occur in small ways in every considerable community in New York State, if this is done. The trouble is that the opponents of this suggested measure do not understand because they have not studied this question as presented to the Council and as passed by it.

The Council very wisely did not approve of any law until it was written—any bill until it was written—but the principle was approved. There are people who would like to be self-respecting and have the doctor paid, and the doctors would like to be paid, and this plan would take care of them. There is no more danger of the Government taking over the mutual indemnity insurance plan than there is of their taking over these hospital organizations based on three cents a day for the hospital care. There is no question but that there is a real danger that sooner or later with the present condition of the hospitals we will face the vending of medical care by hospitals unless some such thing parallels these plans for hospital care. If the doctor is paid a respectable sum, commensurate with the Workmen's Compensation rates, many physicians who today are having a difficult time to pay their rent and to support their families may be in very much better financial position, and best of all, the people of the State of New York will respect themselves and feel that they are really providing the payment for medical care.

DR. HOMER J. KNICKERBOCKER, *Ontario*. Do not mistake non-profit as representing a mere hand-to-mouth existence of an organization. That would be idiotic. We have enough of that in the fraternal life insurance companies in the past that have gone bankrupt or have

had to be taken over by other organizations. The non profit idea should be construed to mean the issuance of contracts at such a price as will create sufficient reserves to satisfy the Insurance Department of the State of New York, thereby guaranteeing the perpetuity of the plan, and not the possibility of a hand-to-mouth existence with eventual failure. It must necessarily be operated under the supervision of the Insurance Department. If these hospital insurance plans are—as they apparently are—successful and can make the strides that they have, there is no reason why a plan such as the one we have proposed can not be made even more successful.

DR. LOUIS A. VAN KLEECK, *Nassau* I see no reason why we should not face the issue of insurance now. We are going to have to face the issue of insurance sooner or later. Why we should be afraid of the name "insurance" I cannot understand. We have had the compensation insurance. That has been under our control and has operated very successfully and has been held up as an ideal for over nineteen years. It has not been any detriment to the medical profession or to organized medicine. On the contrary, the doctor has been taken care of for the work he has done to injured employees. Paradoxically tonight we want to take care of forty per cent of the population, the near indigent, for nothing and we object to paying \$8 more to our Society to create the proper finances necessary to protect our interests. The sooner the Medical Society of the State of New York faces the issue that we have got to have insurance, we are going to have insurance, and forty per cent of the population are going to be taken care of somehow the better it will be for us. It is up to us to take the initiative or else somebody else is going to take the initiative for us (Applause)

DR. THOMAS A. MCGOLDRICK, *Kings* I rise only for a few moments to secure some points of information. It was stated—I am not sure if I understood it correctly—that such a plan will take care of forty per cent of the near indigent or medically indigent. I would like to know what percentage of the population that leaves not provided for. The large percentage I take it that is not provided for by indemnity expense insurance must be provided for in some way. Can we go to the government and say we are only interested in a certain percentage of the population? Will these reformers that are presenting these bills at Washington and at Albany be satisfied with that? We hear figures of what percentage cannot pay to any indemnity fund, and can make no contribution of any kind. Who will take care of them? The Foundations or the Government? Do we not say in this that the Government or somebody must take care of the really totally indigent, and isn't that a very great percentage? Are we inviting them to come in and take part and take care of all those that we are not making any provision for? If we offer this plan of action only for a percentage of the population which may be forty per cent, I do not know, and I ask for a verification of the

figures? What provision is then left for the great number unprovided for?

SPEAKER KOPETZKY Can you answer the gentleman from Kings?

DR. GEORGE BAEHR, *New York* The great mass of people who are on relief today obtain medical and nursing service by payment to physicians out of governmental funds. That takes care of the people who are on relief. The forty per cent who, while employed, are not medically indigent, but who when unemployed or when ill fall into that category, are the ones for which this plan is proposed.

May I say one thing more, Mr. Speaker. The Associated Hospital plan was designed not solely in the interests of physicians but partly in order to prevent our hospitals from going on the rocks. Here in this part of the State it has done a great deal to help and is doing increasingly more to help prevent our private hospitals from going bankrupt and falling into the hands of governmental agencies.

Similarly this plan, a form of carefully protected insurance, hedged about with reservations to protect both the public interests and the medical profession if we can visualize increasing numbers of people protected against the hazards of catastrophic illnesses in this way we are adding another bit to postponing that day when we will have state medicine. Those standpatters who will not face the issue now are bringing on us rapidly that which we wish to avoid. (Applause)

SPEAKER KOPETZKY Is there any further discussion of this question?

DR. NUNZIO A. RINI, *Kings* When I said a little while ago the success of the Hospital Service Plan has prompted private organizations to formulate plans for the giving of medical service, I meant just that. Are we to be accused in the future, as we have in the past, on numerous occasions that the medical profession follows the policy of *laissez faire* do-nothing policy while the people are clamoring for some sort of succor or help in this particular matter?

To me the bugaboo of health insurance that has been dragged into this discussion is a great big red herring more to confuse the real issue than to clarify it. Medical expense indemnity insurance insures for a small fee against the unpredictable costs of medical care. The plan conforms in all details to the principles laid down in the House of Delegates of the American Medical Association in Cleveland in 1934 in that it limits the services or the subscribers or the plan to those people who are below the comfort level. The plan is under the control of the medical profession, and it allows for free choice of physician, which is absolutely contrary to health insurance.

It is for these reasons, and because we are faced with the fact that commercial organizations are springing up ready to offer the services that the medical profession should provide for these people, that we are interested in this at this particular time. (Applause)

SPEAKER KOPETZKY I simply want to remind you that time passes, and we have still one very controversial topic to bring before

this Executive Session. Therefore, I would prefer that each man speak once upon the topic. I say that with no desire to shut off debate, but there is no need before this intelligent audience to reiterate previously expressed ideas.

DR. JOHN J. MASTERSON, *Kings*. I am also of the Council. There is not anybody in this room that has more respect for the opinion of Dr. Jim Rooney, of Albany, than I have. I have been a member of the House of Delegates since 1922, and have always been glad to listen to the pearls of wisdom emanating from Jim, but tonight I am sorry I have to disagree with him.

He has the fear that this will lead to health insurance. I do not think it will lead to health insurance any more than the private fire insurance, or the automobile insurance, or life insurance, has led to the government taking over those particular functions.

There is not any business in the world that requires less capital than criticism. We have had a lot of criticism of this plan this evening and of other plans that have been brought before this House of Delegates providing for proper medical care for the people of this State. I am perfectly willing to subscribe to some other plan if a better plan is proposed, but I have not heard of any better plan proposed than the plan proposed by this particular committee.

As the previous speaker said, we have been accused—and been accused justly—for years of doing nothing. I do not think we can wait much longer before doing something. This is at least an attempt to do something. If health insurance is going to follow this particular plan—and I do not think it will—the few years that the plan is in existence we will have probably learned something that will be of considerable benefit if health insurance has to follow this scheme.

Unless the opponents of this measure have something better to propose I hope the House of Delegates will take positive action on this particular subject tonight. (Applause)

DR. JAMES E. SADLER. History seems to repeat itself. It is just nineteen years ago in our legislative halls in Albany we were saved from compulsory health insurance by one man, the Speaker of the Assembly. At that time the Senate had passed a compulsory health insurance bill, and a Governor stood ready to sign it but Speaker Sweet of the Assembly kept it in the Rules Committee. He did not allow it to come out, hence it did not become a law.

I am absolutely in accord with Dr. Rooney that if this type of non-profit insurance becomes prevalent over this State, it will not be more than two or three years before it will be state medicine. It is very nice to talk about this non-profit insurance, but watch it after you get it and you will find that it will be state medicine in little or no time.

DR. ARTHUR J. BEDELL. Records are being stated as to how long members have been in this House. I was first elected to this House in 1906, and not many on the floor can equal the record I have gone through. I have been told, "If you don't do it, it will be forced upon

you." I have heard these things coming from Washington for several years lately, and surely there is not a thinking man on this floor that will agree that all these trials and errors have led us out of the woods, but most of you will admit that we are deeper in the marshes than we were before. I sincerely trust that you will look beyond the present wording, and know that if you enter into this problem, if you adopt this, you will be most terribly disappointed and disillusioned. It is the opening wedge for state medicine, and there is no question about it. Don't anybody be misled by it.

DR. M. RENFREW BRADNER, *Orange*. Question of information. Under what business auspices is this insurance activity supposed to be conducted?

DR. GEORGE BAEHR. Under any auspices approved by the Society of the State of New York.

DR. BRADNER. What?

DR. BAEHR. It provides for the encouragement of local non-governmental insurance plans, small local non-governmental insurance plans approved by organized medicine as, for example, under Workmen's Compensation compensation bureaus must receive the approval of the County Societies. Also five reservations are made upon which such approval will be conditioned.

DR. JAMES J. ROONEY. Mr. Speaker and Gentlemen of the House, for at least twenty years I have listened to just the same sort of thing that I have heard tonight. I do not want to take up your time. I am sick of talking compulsory health insurance. I am sick of working against it. I think I can say that I am as familiar with the subject as any man in this House, with perhaps one or two exceptions. I think I know as much about the genesis of the movement as any man in this house. Every compulsory health insurance plan that has been put into effect by any Government began in just this way. Germany did not institute a compulsory health insurance plan *de novo*. It arose from the seeds of local small, self-governing bodies, the *Krankenkasse*, and the German Government took them over. Austria did the same thing. When Lloyd George put the thing over in Great Britain in 1911, he said in effect to the sick benefit societies—and that is what these things are, with the exception of the payment of benefit for loss of work, they covered medical care and they covered a small sick benefit—"I am going to take you over. I am going to make this system compulsory. I am going to make it include everybody in the population, or certain groups in the population. We have the mechanism. Your sick benefit societies. We will take them over, and under governmental control we will have compulsory health insurance." And they have it. The British Medical Association for two years went on record against adopting the scheme, and he did what will be done here. He went to them and he said, "Gentlemen, if you refuse to work with this scheme, I will import doctors from the Continent to do it," so they acquiesced.

In British Columbia less than a year ago, in

Canada, the Parliament of that Province adopted the same scheme as the compulsory health insurance. Approximately 690 men in that Province, comprising the medical profession there refused to the tune of 660 to work with the scheme. It is not working there as a consequence.

I have heard these arguments about the medical profession adopting the policy of *laissez faire*. I have heard the defeatist idea expressed that almost wrecked France in 1917 "Make peace on any terms. You can do nothing. The deluge is upon you. You are going to be overwhelmed." I heard it in 1912, I heard it in 1916 I heard it all over the United States in 1921 I heard it in 1925 during the days of prosperity. We are hearing it again. I know the reality of the situation that has been largely described to us by gentlemen from the metropolitan district of this state tonight. The situation in this Greater City of New York is probably as bad, if not worse, than that in any other city in the country.

Dr Baehr, the Chairman of the Reference Committee, told you that the hospitalization scheme was not so much for the benefit of the physician as it was to save the hospitals from bankruptcy. True and important but the report of the Committee on Medical Care said the catastrophic effect upon family incomes is due to the cost of hospital not of medical care. (Applause) The medical dollar as shown by that report showed an expenditure of something like 17.2 for medical care and the remainder in nursing, hospital apparatus and the like. The medical profession is not impoverishing these people. The payment for medical care is not putting individuals who are seized by catastrophic illness on the street and rendering them bankrupt and unable to take care of themselves.

I want with all the vigor that I possess to repeat what I said when I opened this discussion. If you adopt this plan of local sick benefit societies within five years you will not be taking care of forty per cent of the population in this State through such means, but you will be taking care of ninety five per cent of it. (Applause)

SPEAKER KOPETZKY Are you ready for the question? The question has been called for. All those in favor that the question shall be put say "Aye" those opposed say "No." We are ready for further debate.

DR. FREDERIC E. ELLIOTT *Kings* Dr Rooney having spoken twice I presume I may do the same. Dr Rooney has quoted history and so will I. About 1910, 1911 or 1912 it was proposed to pass a law in this State placing upon the employer the liability of providing medical care for injured workmen. Reactionaries within the ranks of the medical profession exuded conservatism and refused to inject proper medical provisions into that law and for twenty years medical care was provided with less than two hundred words in the law. During that time all of the faults of contract practice that could possibly develop into abuses of both the injured workmen and the medical profession developed and it was not until the

medical profession had the wisdom to draft a proposed amendment that would incorporate proper principles for the safeguarding not only of the medical profession but of the people who were to be served that the abuses and wrongs under that Workmen's Compensation Law were corrected.

We have in this instance the appeal of a government agency namely the State Insurance Commission, to the medical profession to indulge in intelligent cooperation and guidance. They came to us asking for that saying "We know insurance, but we do not know the care of the sick."

I have heard on many occasions criticisms of public agencies proceeding to regulate our affairs without consideration of our knowledge and interest. Here is a situation where we are asked to come into the picture and exercise that aid which our intelligence may provide.

At the present time in the State of New York up in the vicinity of Broome County there are a number of these mutuals dating back as far as fourteen years. I have in confidence been provided with the actual figures of their experience. These groups range in numbers from some thirty five people up to about 350 and I give you my word for it that in not a single year have these people by their own management repudiated any obligations to the medical profession, and not in any one year have they failed to show an accumulation of reserves. These activities were initiated originally as a cooperation between employers and employees but when in this late depression in 1929 the employers gave evidence that they would withdraw from the plan the employees took over the entire operation. I have visited those counties and I have it on the word of the men who are practicing there that they have proved thoroughly satisfactory to the professions in those counties. Thank you!

SPEAKER KOPETZKY Are you now ready for the question?

DR. JAMES F. ROONEY I would like to have the opportunity of saving one word in connection with a statement made by the preceding speaker. It is in the nature of a correction. I have a knowledge of what was done when the compensation law was first proposed and the medical profession was not unrepresented. The medical profession was very well represented, and the medical profession presented their arguments at the hearings that extended over a period of five weeks on the Workmen's Compensation Bill. They made every proper representation to the Committee and the employers associations and the labor unions turned them all down. There was not any hasty affair about it at all.

The great difficulty about meeting a question of such primary importance as this in such a large body is the confusion of the issue. We have heard the Chairman of the Reference Committee say that they intend to set up small local, non governmental groups under the auspices of the County Society in which they are to operate but you cannot set up any insurance group in the State of New York without the approval of the Superintendent of Insurance of

the State of New York, I don't care whether it be local, or mutual, or anything of the sort. The law of the state is very specific on that point.

I would like to ask a question. What has been the unofficial opinion of the Superintendent of Insurance of the State of New York and of the Attorney-General of the State of New York in regard to the tenets or proposals of this sort that have been presented to them already?

SPEAKER KOPETZKY Who can answer that?

DR. GEORGE BAEHR I can answer that from my experience as Secretary of the Workmen's Compensation Committee, that wrote the amendment to the present Workmen's Compensation Act. During those few years we obtained great legal experience in these matters, and I can see nothing in the proposed plan that is not legally possible either now or by means of certain minor modifications in existing laws.

DR. JAMES F. ROONEY May I say that does not answer my question?

DR. FREDERIC E. ELLIOTT I will answer it, sir. The Insurance Commissioner, as represented by Mr. Taylor, his attorney, was seen by me in regard to the Medical Aid Society in Kings County, which is a concern that for ten cents a week is providing contract medical care. I asked Mr. Taylor if these people were not engaged in outlaw insurance. He said, "Yes, they are, and if you on behalf of the medical profession will file a complaint, I will issue a summons to them today, and we shall promptly put them out of business. But I recommend to you that you don't do it. We know that they are outlaws to our present insurance law. We know that these insurance schemes in Broome County are actually outside of our law, but we don't propose to bring the wrath of this State down upon our heads because these institutions are rendering the people a service which they need. Don't you file a complaint against them until you have something better to offer." Does that answer your question?

DR. ROONEY That does not answer my question.

DR. ELLIOTT What is your question, then?

DR. ROONEY I will repeat the question.

DR. NUNZIO A. RINT, *Kings* I know what your question is and maybe this will answer it. At a hearing of the Law Revision Commission in New York City about four or five months ago Commissioner Taylor, in answer to the argument presented by various representatives of the different Foundations and also of the Hospital Service Plan and others, asked of these people if they had a plan which was better than the one presented by the Medical Society. When no answer was forthcoming, he said publicly that in his opinion he would favor that

plan in comparison with any other because he felt that any plan presented by the Medical Society would have the full approval of that particular Commission.

DR. ROONEY I still protest that does not answer my question.

SPEAKER KOPETZKY You are asking what the opinion of the Attorney-General of the State is—

DR. ROONEY I am asking a question as to whether or not the Superintendent of Insurance of the State of New York has been consulted concerning the proposed plan, and what his statement in response to that proposal has been, and what has been the opinion of the Attorney-General as the adviser to that Department in relation thereto?

SPEAKER KOPETZKY I do not know how I can get that opinion for you, sir.

DR. ROONEY I am asking the question.

DR. ELLIOTT The Insurance Commissioner has a legal staff, and by his direction the legal staff is drafting the incorporation of this principle. The only reason that it was not complete and introduced in the last session of the Legislature was because he was taken over into the issue of life insurance by savings banks and could not give the time to it to work out the criticisms voiced by me on his tentative draft that he had prepared by instruction of the Insurance Commissioner.

SPEAKER KOPETZKY In my humble opinion you have not answered the question yet.

DR. ROONEY I understand now that this Committee, which has had the preparation of this plan in its hands for five years, as I know personally, being the Chairman of the Reference Committee to whom that report has been referred for five years, has not yet consulted the Commissioner of Insurance whose approval is essential before any such plan as this can be put into operation. I contend this. It justifies my first motion that this matter be referred to the Council for further study.

DR. BENJAMIN JABLONS, *New York* May I ask how it is proposed to withhold the benefits of this plan from people in the higher income brackets than those indicated here, and whether it would be legally possible to carry out such a procedure?

SPEAKER KOPETZKY Is there any further discussion? Are you now ready for the question? Then I am going to put the question. Those in favor of adopting the Reference Committee's report, which would put into effect the proposition that has been so long discussed, say "Aye", those opposed, "No". The motion seems to be lost, but I am not sure. Those in favor rise. Thank you! Now, those opposed, rise. The motion seems to be lost, and is lost, and is so declared.

Public Health News

Public Health Notes

J ROSSLYN EARP, L.R.C.P., Dr.P.H.
New York State Department of Health

Another National Program

Last autumn Mr Homer Folks read a paper to the American Public Health Association in which he distinguished the functions of public health from those of social welfare. Historically, the proposal to establish a national health authority came from Edwin Chadwick when he was the chief executive of the Poor Law Board. It is true that the inspiration resulted from Chadwick's observation that the cheapest way of combating poverty is to prevent impoverishing disease. But at no time did Chadwick suggest that the efforts of preventive medicine should be limited to the pauper class. From the very first he saw the protection of the public health as a national responsibility directed to all classes of the population. Mr Folks in his paper which is to appear shortly in the *American Journal of Public Health* presents seven powerful arguments why this is as true today as it was in 1848.

This point of view was recalled the other day when Mr Folks presented to the board of directors of the National Tuberculosis Association a six-year plan for case finding and hospitalization of the tuberculous a plan which they promptly endorsed. The Federal government is called on to subsidize this plan because (1) they alone may be expected to furnish the necessary nation wide "impulse" and (2) "the Federal government has a more definite and compelling interest in protecting the man power of the country from tuberculosis than any other unit of government!" It is proposed that the Federal government bear two-thirds of the cost of new construction and divide equally with the states the cost of hospital maintenance and of case finding.

As presented by the *New York Times* the plan suggests some problems to which it provides no answer. One may be sure that Mr Homer Folks has considered them and has his own answers. Our readers may in the meanwhile be able to suggest others. Your correspondent will be glad to collect

any and all, and to present them to responsible quarters for consideration.

Obviously some states, notably New York State, have much more advanced programs than others at the present time. Will Congress allocate funds according to need or on a population basis? Among the most backward states in making public provision for the care of the tuberculous are the health resort states of the West. There is a good reason for this. Thousands of afflicted easterners have gone West. Thousands have "gone west in more senses than one. They are not now where they may be seen. A comparatively small number have survived sun tanned and energetic witnesses to everything the chamber of commerce may have said. But the resulting prosperity depends upon a differential. The Southwest is more anxious to attract the wealthy than the indigent. It has therefore provided an excess of private sanatoria but is condemned to a great dearth of public hospitals. This leads me to believe that if the Federal government would make provision in the West for easterners who insist on following the sun, the western states would then feel free to make public provision for their own people. Moreover the scandal of the "acid fast" hobo and his wretched relatives would at last be removed. This is a purely personal opinion which has never found approval anywhere. But whatever may be the solution there is a problem to be solved.

Another problem which cannot be overlooked in any national campaign is that of the chronic consumptive who is capable of part time work. Papworth Colony in England and the Altrusham in New York are notable demonstrations of the possibility of restoring to useful and hopeful existence workers who might otherwise be condemned to monastic seclusion. Segregation as Dr Frost pointed out, becomes of more and more importance as the number of active spreaders of disease diminishes. The social control of tuberculosis will be more successful the less it is cruel and compulsory.

A father is responsible for medical attendance for his child in addition to normal support and maintenance, Albany City Court

Justice Anthony DeStefano ruled on May 11, in a decision involving a hospital and doctor bill.

Medical News

Chautauqua County

THE SEVENTH ANNUAL inter-state summer meeting of the Medical Society of the County of Chautauqua will be held at Chautauqua Institution on July 27

This meeting offers a wide variety of scientific papers, cultural entertainment, and sports in a setting which is ideal for renewing old acquaintances

The program for the morning session has appeal for the specialist as well as the general practitioner and is made up as follows

10 00 Dr A H Aaron, Buffalo "Treatment of Selected Gastrointestinal Conditions from the Viewpoint of the General Practitioner"

10 45 Dr Karl A Menninger, Topeka, Kan "Contributions of Emotional Factors to Physical Disease"

11 30 Dr Frank H Lahey, Boston, Mass "Some of the Newer Developments in Surgery"

Luncheon will be served in the Hotel Athenaeum The afternoon session includes papers by Drs Menninger and Lahey to be given in the Amphitheater and will be of interest to the laity There will also be a golf tournament with attractive prizes as well as a boat ride on Lake Chautauqua

The Chautauqua Institute makes a special effort to offer entertainment for all and will have an attractive program of lectures and music throughout the entire day All events will be on daylight saving time

Dutchess County

THE DUTCHESS COUNTY MEDICAL SOCIETY held a regular meeting May 19 at the Amrita club, in Poughkeepsie There were reports from the delegates to the state society meeting, discussion of state problems, and a report on the scientific program of the state meeting Dr Scott Lord Smith, president, was in charge.

Erie County

AT A MEETING OF THE Buffalo Common Council on May 3, a proposal by Council President George W Wanamaker which would prohibit departmental surgeons from giving free medical service to members of the police and fire departments was approved The proposal was sponsored by the Erie County Medical Society Under the terms of the Wanamaker proposal, free

medical service will be given only in case of injury received on duty or service-connected illness

Kings County

THE BROOKLYN THORACIC SOCIETY presented this program at its meeting on May 20 I Case Finding Through Periodic Contact Examinations, Dr Nagla Laf Loofy II Supervision of Primary Lesion in Children, Dr Mary R Eleston III The Department of Health Program for the Control of Tuberculosis, Dr H R Edwards

Montgomery County

THE MEDICAL SOCIETY OF THE County of Montgomery heard the third lecture in the post-graduate course on May 5 at the Elks Club in Amsterdam, Dr Edward J Collier, chairman The speaker was Dr Samuel Standard, assistant clinical professor of surgery, New York University College of Medicine He gave a paper on "Circulatory Disturbances in Acute Medical and Surgical Derangements" The fourth lecture of the course was given on May 19 The subject was "Circulatory Disturbances in Heart Diseases" and the speaker was Dr Arthur DeGraff, professor of therapeutics, New York University College of Medicine.

Tompkins County

A SUCCESSOR TO Dr Barton F Hauenstein, secretary-treasurer of the Tompkins County Medical Society, will be appointed by a committee selected at the quarterly meeting at Biggs Memorial State Hospital on May 17

The vacancy created by Dr Hauenstein's going to Buffalo July 1 will be only temporarily filled until the Medical Society's annual December elections

A scientific session was conducted by Dr John K Deegan, Biggs Memorial Hospital superintendent Dr Richmond Douglass of that institution read a paper describing six cases of foreign-bodies-in-lungs discovered in tubercular suspects through regular examinations Two were timothy grass heads, others were nails and bits of wood

Dr Max Pinner, also of the Biggs staff presented a test tubercular case to assembled physicians for diagnosis The non-specialists correctly figured it to be "non-tubercular"

Hospital News

Newsy Notes

GATES W. MCGARRAH, treasurer and chairman of the distributing committee of the United Hospital Fund, made public on April 24 a list of hospitals throughout New York City to which funds have been allocated from the total raised last Fall in the joint campaign of the hospital fund organization and the Brooklyn Visiting Nurse Association.

The total amount voted for distribution to date is \$1,752,916, Mr McGarrahan reported, and all but a small part has been distributed. The distribution was made under four classifications \$1,000,000 for free care in hospital wards and dispensaries, \$181,116 for special needs of hospitals, \$506,800 for women's medical social service and auxiliary activities and \$65,000 for the Brooklyn Visiting Nurse Association.

The latter organization is to receive a "substantial" further payment soon, Mr McGarrahan said, and certain other hospitals will get additional funds.

A PASS SYSTEM at Ellis Hospital, Schenectady whereby visitors to patients in wards or semi-private rooms are allowed to see a patient for but twenty minutes was put into effect at the institution in May. Each patient has two visitor's cards and is allowed two visitors at one time during the regular visiting hours. When the time allotted to the visitors has expired, they leave the room and turn in the cards at the reception desk. The cards are then given to two other visitors. The system is similar to that in use in most modern hospitals.

AMONG MANY PUBLIC REQUESTS in the will of the late Henry Ware Putnam are \$50,000 each to the Presbyterian, St. Luke's, Mt. Sinai and Post Graduate Hospitals, also, \$25,000 to the New York Skin and Cancer Hospital.

THE LONDON HOSPITALS have received during the past year a present of over

5,000 gramophone records by the courtesy of the British Broadcasting Company and the record manufacturing companies. These records, which have been used for broadcast purposes, are delivered to the hospitals free by the Gramophone Company.

Improvements

THE NEW WING OF THE Buffalo Emergency Hospital was dedicated and opened on May 15. The extension gives the hospital a bed capacity of 140 and the most modern facilities for operation and special treatments. In the new wing are operating rooms, laboratories, administration offices, private rooms and quarters for the nursing staff, besides a new chapel. The older portion of the hospital has been remodeled to provide more rooms and wards.

ESTABLISHMENT OF A contagion hospital in Poughkeepsie for segregation of all contagious diseases was recommended by Dr. H. Weston B. Stubbs, former Board of Health member, in an address before members of the Exchange club in the Nelson house on May 12. Pointing out that such a unit would greatly enhance public health, the physician advised the building be constructed with government funds or "taxpayers' money" with the city or county paying the costs of hospitalization of patients.

THE W. C. A. HOSPITAL AT Jamestown has installed a new shock proof radiographic and fluoroscopic x-ray machine and mobile x-ray equipment. The mobile unit can be moved to any part of the hospital as needed.

DR. LEROY W. HUBBARD, field director of the Georgia Warm Springs Foundation sponsored by President Franklin D. Roosevelt and prominent citizens of the United States interested in the eradication of infantile paralysis, was in Auburn in May to inspect property for an infantile paralysis rehabilitation center for that section of the country.

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

Post-Mortem Appearances By Joan M. Ross, M.D. Third edition. Duodecimo of 243 pages. New York, Oxford University Press, 1937. Cloth, \$2.50.

In this third edition the text has been revised and brought up to date. The important feature of the book is the description of the cadaver giving the external appearance followed by the internal appearance in varying conditions causing death. At the end of the book are useful tables of weights and measurements. It is a handy little volume for the pathologist.

MAX LEDERER

Practical Physiological Chemistry By Philip B. Hawk, M.S. and Olaf Bergeim, M.S. Eleventh edition. Octavo of 968 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1937. Cloth, \$8.00.

This is the first edition of "Hawk" since 1931, and marks its 30th anniversary of usefulness. Its dedication to the memory of Benedict, Folin, Jones, Lusk, Macallum, and Mendel, is apt, and the loss to biochemical science of their part in it has been gracefully emphasized. It is neither feasible nor warranted to review in detail so distinguished and almost indispensable an authority. The volume has, necessarily, been enlarged and a third of the chapters rewritten. Much of the remainder has additions and changes in text, illustrative material, and arrangement. The authors and collaborators are to be congratulated for maintaining and bringing to date this eminent standard.

IRVING M. DERBY

Pediatric Urology By Meredith F. Campbell, M.D. Volumes I & II. Quarto, illustrated. New York. The Macmillan Company, 1937. Cloth, \$15.00 per set.

We have all enjoyed Dr. Campbell's presentations and discussions in this field for years. He now gives us the benefit of his vast experience in a well written and splendidly illustrated two volume work that is complete in every detail. Its publication is timely, and the answer to a definite need—an authoritative textbook in this branch of Urology.

The chapter on urinary tract infections

is replete with the newer forms of therapy, and can be read to advantage by all of us, regardless of what branch of medicine we practice.

Urogenital anomalies are discussed at length, and are of extreme importance. Volume two contains a chapter on Bright's disease in infancy by Dr. Lyttle which is of unusual worth as well as the chapter on urosurgery which is really a complete textbook in miniature. The relatively little known subject of neuromuscular disease is well presented.

Increasing numbers of these cases are being found as we learn more about this condition. This work should be in the library of every practitioner interested in pediatrics or urology. It is a splendid reference text, and will be useful for many years.

FEDOR L. SINGER

The Cerebrospinal Fluid. By H. Houston Merritt, M.D. and Frank Fremont-Smith, M.D. Octavo of 333 pages, illustrated. Philadelphia, W. B. Sanders Company, 1937. Cloth, \$5.00.

Within one cover is presented all available information concerning the cerebrospinal fluid. The presentation is of facts, facts for clinical use and clinical reference. The anatomy, physiology, chemistry, and pathologic physiology are fully and concisely treated. Technics and indications for drainage are given in detail, and include those relating to therapeutic uses, intrathecal therapy, and roentgenography. The discussion of findings is of notable interest, not only those in the usual syndromes, but also those in conditions not ordinarily remembered in relation to fluid examinations.

Methods of examination are adequate, particularly those of "bloody taps." The authors may feel the subject is one for serology, but complement-fixation and precipitation test methods have been avoided. The scope of the volume is connoted by the fifty nine pages of bibliography. There has not been a more comprehensive clinical treatment of the subject in any language.

IRVING M. DERBY

ORDERING BOOKS

As a service to our readers books listed in this issue or any other medical book in print may be ordered through T. H. McKenna, Inc. 878 Lexington Avenue, New York City. Phone BUtterfield 8-6603.

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RELATION OF THE PUBLIC HEALTH OFFICER AND THE PHYSICIAN IN A CHILD CARE PROGRAM

JOHN DORSEY CRAIG, M D, *New York City*

There has been an increasing awareness during the past few years of all social phases of our profession which has compelled us to focus our attention upon the effectiveness of our programs. This has led to an appraisal and evaluation of our present set-up to determine the value of existing methods. Recent forces have produced changes in our thinking which have created new social values and attitudes and we perhaps feel our responsibility for the health of children more than at any other time.

We have been given the mandate to lead health programs which necessitates putting into practice that which has proven to be scientifically valid, and at the same time we should seek to extend by research the boundaries of our knowledge. Such an objective requires the co-operation of the community. However, it is not enough that we have their co-operation, it is our responsibility to plan what the community shall think and what health principles they shall hold priceless.

This meeting today signifies our desire for further clarification of our aims and respective responsibilities in improving health in general, and indicates our willingness to make common cause with our fellow practitioners, the specialist, the public health officer, the nurses and the social workers in an effort to attain the goal we have set for ourselves. The economic disaster has caused the differ-

ent disciples of social welfare to think in terms of effecting partnerships to the end that their aims may be consolidated for the common good. Such a beginning must be prompted by mutual need as well as a respect for all concerned.

The objective of a child care program might be briefly defined as the discovery of and ability to serve the health needs of children by means of a unified approach. Such a goal implies prevention which is the end of all social programs. It has been said that health is one of the most important indices of social welfare which we possess. However, we are fully appreciative of the fact that physical and mental problems are not the only factors which can make their imprint on the growth record.

The health of the nation is not wholly a medical problem. It involves nutrition, housing, education, and other aspects of the economic and social welfare. Because of the vastness of the field we must delimit our interest and pursue a singleness of purpose. This selected emphasis on health should increase our knowledge and furnish us a sounder basis on which to build. The other related groups whose aims are identical or similar to ours must have our support and cooperation.

The passage of the Social Security Act in 1935 has made it possible to promote health programs for mother and child under public auspices and many

*Read at the Annual Meeting of the Medical Society of the State of New York
Rochester May 25, 1937*

of these have been set into operation, while others emerge as a State responsibility. This trend opens new horizons to the public health officer and at the same time the private physician is obliged to reorient his thinking with reference to larger and more generous ideals.

We read a great deal about programs which we need, the changes which must and are taking place, and we must be careful not to confuse change with progress. No one would advocate a blind adherence to the status quo, but one must be able to distinguish between knowledge and opinion and to build programs only on knowledge. We caution against scrapping any old method without taking from it that which has proven to be of value.

The public health officer and the physician have coordinate positions in charting our future course for the promotion of health. Public health is in and of itself a specialty, the same as surgery, pediatrics, or any other medical specialty. It is the responsibility of the public health specialist to determine health needs, to set up machinery to take care of these needs as well as to evaluate the efficacy of preventive measures. We assign to him leadership in the all-important task of educating the public, at the same time he must secure the cooperation of private physicians in planning programs according to the best medical practices. In other words, the public health specialist becomes the "medical engineer." The practicing physicians must furnish, through research and experience, the structure for these programs. However, we fear that if we were to leave to them the engineering task, the programs might be too identified with self-interest, or because of their preoccupation with immediate tasks they might render only lip service and no change would be effected.

Dr DeSanctis has said that "doctors are notoriously poor propagandists." Perhaps if they were good propagandists they would not be good doctors, and may be that we should consider this function of the public health officer. When we trace the historical growth of medicine we find it has been this division of labor which has made it possible

for us to control such diseases as typhoid, smallpox, and diphtheria. The absence of such pestilences as cholera and the bubonic plague in recent years tells the story of the research and the co-operation of health departments and physicians.

The function of the health officer changes according to needs and from one locality to another. The problems which concerned the health department of yesterday, such as sanitation and pure food, have been largely controlled through legal and other measures, and today health departments must concern themselves with new problems of equal severity.

The physician's knowledge, gained through research, experience, and application, must be applied on a broad basis by the public health worker through the medium of a child care program. In turn, the health officer must make available to the physician additional facilities, as well as improved and more adequate resources for those who can not afford to pay. For instance, a physician upon request should be furnished by a municipal agency such services as serums, laboratory facilities, nursing care, and adequate needs for the care of the premature infant. These should be dispensed through local units to avoid red-tape and delay—to the end that their use might be encouraged if made easily accessible. It should be obligatory for the physician to utilize these facilities of available therapeutic uses.

The Health Department roentgenography findings is of note. The establishment of those in the usual existing division also those in conditions remembered in relation to infections. Methods of examination are particularly those of "bloody taps" authors may feel the subject is serology, but complement-fixation precipitation test methods have been. The scope of the volume is covered by the fifty-nine pages of bibliography has not been a more comprehensive treatment of the subject in any.

IRVING M.

ING BOOKS

ad in this issue or any other medical book. MCKENNA INC., 878 Lexington Avenue, New York 17, N. Y. Phone BUtterfield 8-6603

those mentioned, exist, however, they have been created by individual physicians who have felt a particular need and zeal for such developments.

It is to the nurses that we leave the indispensable task of educating those parents who must rely on this source for guidance on how diseases may be prevented. While they are giving instruction on the care of the sick, they are at the same time educating the families leaving them better prepared to care for themselves in the future. It avails the doctor nothing to diagnose and prescribe if the parents are inadequate in carrying out instruction. Because of these inseparable functions, the nursing staffs of all health departments should be increased in order that they might have more time to teach and guide parents as well as to assist and participate in the general administration of health programs.

One of the gravest problems facing public health today is that of personnel. The sudden impetus given to these programs by public support, caught us unprepared to supply experienced staffs quickly. Our schools had not anticipated this sudden need and had not adjusted their curricula accordingly. The Government has made an attempt to meet this need by allocating a certain per cent of the funds to the training and education of personnel. It has been announced recently in New York City that five new teaching centers will be established, in the hope that these new centers will make possible the training of enough men and women in public health administration, not only to supply leadership for this City, but for others.

Certain medical specialists have recently set up standards which, in the main, should assure the public that the doctor who alleges to be a specialist is, in fact, a trained one. If we consider public health a specialty, why should we not demand that its personnel qualify according to minimum standards of training? Our medical schools should make available to those interested in this specialty courses which would lead to a combined medical and public health degree. We feel that this presents a challenge to organized medicine whose responsibility it is to set up criteria and

standards of performance in all the different specialties of medicine. They must at the same time find ways and means of educating the lay person to the difference as well as the value of such criteria. In communities which are not large enough to warrant such specialization the health officer should be a physician interested primarily in the broader aspects of health.

At the same time, all public health departments should be removed from politics. Men should be chosen for their dynamic leadership and their ability to appraise the relative effectiveness of different procedures and as a result they should be able to recommend desirable and necessary practices for community health work.

Any health program for the child must be based upon a knowledge of the inherent problems peculiar to a particular community and these will vary from one location to another. There should not be equal facilities where there is unequal distribution of need. Local health units require some centralized body which will serve to coordinate, promote and assist them. For this plan, we recommend the creation of a separate Federal health department. The director of such a bureau should be given Cabinet rank and should be chosen from the outstanding doctors of medicine, whose contribution in this field gives him a position of leadership. For administrative convenience it might be necessary for the Federal Dept to divide the country into health districts. However, local units should remain autonomous and become an integral part of the community which they serve.

No preventive program is worthy of its name if it does not shield inadequate individuals from the consequences of social diseases and other health menaces which they cannot control, alter or singly cope with. All measures of prevention in a child care program must permit us to go further in our methods than dealing directly with the child. When we investigate infant mortality we find a large number of deaths resulting from conditions which existed before birth and we know that the sickness or death of a mother after a baby is born lessens the baby's chance for life and health. The establishment of prenatal and maternity clinics is of course a step in the right

direction, but we must go further and devise *case-finding* as well as *check-up* and *follow-up* mechanisms if we are to realize a further reduction of infant mortality. This necessitates the creation of new facilities as well as new legislative measures since we cannot wait upon the education of the masses as a universal process. We can treat a child who has been born of a syphilitic mother, but how much better it would be if we could start with a healthy child and fit him into a program designed to keep him healthy. First consideration should be given to the requirement of a complete physical examination, including laboratory procedures, for all those purchasing marriage licenses, and cases of social disease should be registered with the Departments of Health. Subsequent treatment and follow-up should be attempted when indicated.

All doctors have means of diagnosing social diseases, but some way must be found to force a more complete utilization of the diagnostic facilities at their disposal. Is it too much to ask that pregnancy be made a reportable condition accompanied by serological reports? In the same way should we not also require that all adult pneumonia be typed, since we have already found some types amenable to serum? If these controlling principles could be instituted in all known preventable diseases and these principles could be made national in scope, we would be further along in our program of prevention. Nevertheless, we should be careful to blend authority and self-determination in equal proportions in order to permit the doctor and patient due freedom and responsibility.

In New York City a tuberculosis control has been gaining emphasis, and a program has been developed which requires that all new cases be centrally reported and cleared. In addition they conduct a case-finding service among an apparently well population. This study disclosed about three per cent with the disease who had never before been recognized.

Society in general must make life more meaningful for children. After we have contributed to health security, we must lend our support to those groups whose interests are directed toward creating a

new philosophy, which gives promise of generally changing attitudes regarding social problems.

There is a growing professional and popular interest in mental as well as physical hygiene and I believe that to stimulate this interest is one of the larger responsibilities of our Health Departments which we are only beginning to realize. A child care program must integrate mental hygiene with physical health in order to promote the general unified growth of the child. In Chicago, for instance, mental hygiene has been a part of the program of Infant Welfare since 1925. In a day when we find a need to individualize all programs, we see the necessity of early discovery and proper handling of behavior problems of children and child management. This partially becomes a responsibility of the Health Department, and some mental hygiene training should be a requisite for the personnel of these departments. Such a program not only increases the staff's tolerance and understanding but makes them better teachers. When it is a part of the public health nurse's equipment, she will be better able to assist and guide the mother in dealing with minor maladjustments as well as to interpret to the parents the meaning of such difficulties. This also provides a greater assurance of detecting and referring problems of maladjustment in their incipency, which might lead to more adequate handling of the mentally diseased and mentally defective individuals. Habit-training clinics might well be a part of this phase of development.

It may be necessary for us to change our concepts regarding the basic needs of individuals as well as methods by which these needs can best be served. If we advocate the process of individualization and believe that mass handling of any social problem is not in accord with present day thinking, we might well consider the problem of hospitalization. One question is the necessity of isolating in one congregate institution—namely, the City hospital—those individuals who cannot afford to pay. This archaic plan stigmatizes both the patient receiving care and the hospital. Instead, all existing hospitals should be subsidized for the care of those individuals who cannot pay.

This plan would distribute the responsibility for such care according to different health areas and would permit greater flexibility and a wider choice for the patient. Hospitals which are forced to depend on paying patients for support cannot afford to give adequate care to free patients, and such a condition fosters class distinctions which negate the ideals of medicine, which aim to give medical service to all those in need, according to the most scientific knowledge and with all the skill available.

Concomitant with such distributions of responsibility for hospital service for those who cannot pay, we believe that clinic service should also be extended free. The hospitals if subsidized would not have to charge for either service in

order to meet their budgets. Nursing care in the home is another adjunct to medicine which, because of its educational and guidance value, should be subsidized by some municipal agency.

The trends which we have mentioned and others which we know about in the medical profession can easily falter or die—or be cast aside for less firm plans—unless we accept leadership in strengthening them. We cannot be satisfied with health security or biological survival alone. Therefore, we must give our support and council to all other social welfare programs. We should face the fact that promotion of health is a progressive task and that tomorrow will bring new problems, new resources, and new goals.

108 E. 68 St

SKIMMED MILK FOR CHILDREN

The more extensive use of skimmed (separated) milk has been advocated by the Technical Commission on Nutrition of the League of Nations Health Organization, reports the *British Medical Journal*. Large quantities of this type of milk are available at butter factories at a very low price. Since it contains the nitrogen carbohydrate and mineral fractions of the milk, it has a high nutritive value for human beings.

The difficulty as pointed out in another report of the League, consists largely in distribution. By the time the skimmed milk has been brought to the towns pasteurized and bottled its price, so far as calorie value is concerned will be very much the same as that of whole milk.

An alternative method was therefore suggested of supplying the separated milk in dried form. It is interesting to note that observations are already available to prove the value of this method. Aykroyd and Krishnan in India found that the addition of liquid skimmed milk reconstituted from powder to the diet of children in residential hostels brought about an acceleration in growth and a decided improvement in general condition.

In a more recent paper Krishnan and Mitra report two experiments made on chil-

dren of the poorer classes in Madras. In the first experiment twenty boys were given daily eight oz. of liquid skimmed milk for three months, while twenty similar boys received no addition to their diet. The average increase in both weight and height was notably greater in the former than in the latter group. In the second experiment twenty four boys and eighteen girls were given daily eight oz. of skimmed milk reconstituted from powder while a similar number of boys and girls were given one oz. of wheat flour biscuit of about the same calory value.

At the end of ten weeks the weight and height increase among the boys in the milk-fed group was manifestly greater than in those of the biscuit fed group. Among the girls the increase in height but not in weight, was manifestly greater in the milk fed group. These experiments demonstrate the benefit the results from giving a ration of skimmed milk to school children who are receiving an inadequate or unbalanced dietary in their homes. The cost in the second experiment of supplying a child daily with eight oz. of skimmed milk reconstituted from powder was twelve annas a month, or in our currency less than a half penny [one cent] a day.

An Irish physician says good health is a disease. Now that this discovery has been made medical science should get busy and make it contagious.

—*St. Louis Star Times*

An upstate paper trying to say something nice about a local doctor who read a paper at the meeting of the State Society reported in its headline that he was "Listed as Speaker at Medical Confab."

CRYPTORCHISM

Indication for Operative Treatment

FRANZ SCHUCK, M D, *New York City*

Form Professor of Surgery, University of Berlin and Director of the Municipal Hospital am Urban, Berlin

The therapeutic indication in cryptorchism is very indefinite at present. The surgeons consider the incomplete descent of the testis as a more or less mechanical deficiency of development, while internal medicine traces it to the chapter of hormonal disturbances. Hence, treatment of such a patient depends largely upon the individual theory of the physician he consults, and many of the results are unsatisfactory.

In my former activity in Germany, I had the opportunity of treating and observing several hundred school children with cryptorchism. The group which will be discussed below comprises 200 children, of whom ninety-seven we operated upon, the balance (103) were treated by conservative methods, or were merely observed. Thus, both groups were treated and followed up by the same surgeon so that the clinical comparisons are at least homogeneous, in spite of their inevitable subjectivity.

Age

At their first examination, the age of the 200 children was between six and fourteen, corresponding to the school age then compulsory in Germany. Children under six and adults are not considered.

The ages at which they were operated upon ranged within the same limits—six to fourteen—with a preponderance of the years from nine up. As will be mentioned herein, the operation was postponed with our growing experience, hence, the average age of operated boys was twelve in 1932, as compared with nine in 1926.

The time of follow-up covered a period of from four to six years. Thus, many of the adolescents were re-examined up to eighteen and twenty.

Statements concerning the most desirable age of operation vary considerably in the literature. My own conclusions will be discussed below.

Operated Cases

Remarks on operative technic

In most cases (seventy-five per cent) I affixed the testis to the bottom of the scrotum and at this point sewed the outside of the scrotum to the thigh with one or two strong silk sutures.

The surgical results in cryptorchism, assuming the operative technic is correct, depend almost entirely upon the character of the selected cases, however, a few remarks on the operative technic may be appropriate.

In principle, the operative methods in cryptorchism fall into two categories—those which affix the testis to the bottom of the scrotum, and those which affix testis or scrotum to the skin of the thigh.

In every case two fundamental requirements should be observed: (1) the testis should not be injured or pierced by the operation, (2) the blood vessels of the funiculus should be left entirely intact, no less than, of course, the deferent duct. This is always possible, provided the technic is correct.

All correct technics, whatever method is used, are based upon one device: that the hernial sac (processus vaginalis peritonei) should be isolated unopened from the funiculus, high up in the inguinal canal. At this place isolation is easy, without opening the hernial sac or injuring any vessel.

As soon as the hernial sac is cut through high up, after its highest possible isolation, the testis can be readily pulled down, deferent duct and vessels give surprisingly, and it is apparent that the main resistance to the pulling down of the testis had been the processus vaginalis peritonei.

Conversely, it is hardly possible to obtain an optimal result if the hernial sac had been opened unintentionally and beforehand, either in the scrotum or higher up. In order to isolate such an opened sac, vessels must be injured, to the detri-

ment of the testis, or, in order to preserve the vessels, tissue is left unsevered, which hinders the pulling down of the testis.

So much for the operative technic. If its principles are observed the special method used is less relevant, our results with simple orchidopexy differed little from those of our more radical procedures.

Operative Results

Position of the testes

The position of the testis in our operated cases was as follows. In ninety-seven operated cases, before the operation the testis was located

Thirteen at the upper end of the inguinal canal
Sixty five about in the middle

Thirty six at the lower end.

(The total of 114 operations in ninety seven patients is explained by the fact that in seventeen cases the lesion was both-sided.)

At the discharge of these boys from the hospital, after operation the position of their testes was listed as follows

Two in the middle of the inguinal canal
Twenty four in the upper part of the scrotum
Twenty five at the bottom of the scrotum.

These results were unchanged at a second re-examination, which means that the results had been maintained for several years.

Condition of the operated testes

In fifty one sided cases the affected testis was compared with the normal before the operation and three to four years after. At this second examination forty one testes had not changed their relative size, compared with the other testis; nine proved relatively smaller than could be expected from the status several years before.

From these figures, however, no conclusion is possible without thorough comparison with the unoperated cases. A one-sided atrophy may improve during normal puberty without any operation, contrariwise, an atrophic testis might lag more and more compared with the normal side.

Hence, all judgment of operative success requires careful comparison with a large series of unoperated cases. Such a group will be discussed in the following

Cases Treated Without Operation

From the follow up of 103 unoperated cases one observation was certain, i.e., the growth of the unoperated testis during the years of observation was often surprisingly good—on the average it was no worse than in the operated cases. This is important, for it had been assumed in surgery that operation of a cryptorchic testis was essential for its development and growth.

In the comparison of operated and unoperated cases, no proof was found for this assumption. True, an operation with correct technic did not impair the later growth of a testis, but on the other hand it certainly did not further it. Contrary to the former surgical literature, it could not be found that operative lowering of a testis meant any useful impulse to its development or to internal secretion.

The spontaneous descent of the unoperated testes showed great differences. In several cases not the slightest descent could be recorded after many years, while in others a complete descent was noted within one or two years of puberty.

Statistics will not be given because it was obvious that these variations were caused by fundamental differences in the nature of the cases. These differences will be discussed in the following.

In looking over the entire material of 200 cases, it was evident that they consisted of two groups—those with and those without manifest hormonal disturbances. There was a surprisingly high percentage of the "Froehlich" type, but also a number of slender and wiry boys with an apparently healthy hormonal life.

On the whole one must be very cautious in drawing conclusions for internal secretion as long as we know so little about the biological details in the development of male sex. The literature on cryptorchism contains great contradictions in this respect. In numerous publications it is emphasized that in abdominal testes the spermatogenesis is missing while the intermediary cells are fully developed. These intermediary cells are—in common conception—responsible for the character of sex and internal secretion. However in cases of both-sided abdominal testes we find, particularly often, the gravest

disturbances of internal secretion, up to eunuchoidism

The theories on the disturbances of male development are still mere hypotheses which might be overthrown by one single discovery in the field of internal secretion

Heredity

Likewise, investigation of hereditary factors reveals little knowledge of the problem. It is true that we found in the families of these children a certain disposition to hernia, which was expressed by a somewhat higher percentage of inguinal herniae than in other children. Besides, some cases of double-sided cryptorchism displayed other disturbances of development, were feeble-minded, enuretics or attended classes for the retarded. But this means little, since these defects are also found in disturbances of development of other kinds, and the fundamental question, whether the lack of the descensus is primary or secondary, is not solved by such observations. One hereditary factor which seemed conspicuous, will be discussed later

Selection of the Cases

If one is convinced that the primary cause of cryptorchism is biological and not mechanical, one will not expect that merely mechanical shifting of the gland will mean a particular benefit to internal secretion. On the contrary, one feels rather uneasy during the operation when pulling on an atrophic testis, thus increasing the insufficiency of its circulation and, through this, its function.

Hence, first of all, I excluded one group of cases from the operative therapy—stout children with dystrophia adiposogenitalis and with flat or slightly bulged scrotum before the age of puberty. Such children are ill, and one would operate on them for merely cosmetical reasons. This, however, may wait until long after the years of pubescence.

Much more important than all cosmetic considerations is the viewpoint that such boys need for their development in puberty all of the hormonal power which they can possibly produce. It would be a grave mistake to cause the smallest sub-

traction from this power by any premature operation—or even to risk it. Yet, such cases are not rare. Among our 103 unoperated cases we had no less than forty-four with a more or less pronounced dystrophia adiposogenitalis. It is wrong to assume that these cases cannot recover in their constitution if they are *not* operated upon. Sixteen of our children with pronounced adipose dystrophy, whom I had considered constitutionally hopeless in the first examination, had a strong trend towards normal development during puberty. These children went through change of voice, growing of hair, genital and psychic development in varying sequence, and, the most characteristic sign, they became more slender. In re-examinations I saw several boys of about fifteen who from adipose, spongy, feminine children had developed into sturdy, muscular lads. Parallel to this the external genitals become larger though not so developed as in strong adolescents of the same age, yet sufficient for intercourse and, probably in a considerable number of cases, also sufficient for fertilization.

This latter seems to be proven by one of the most surprising experiences of our re-examination—the fact that several of these somewhat stout adolescents with relatively small genitals, who in our observation had developed from fat dystrophic children, *had fathers who looked exactly like them*. As a surgeon who dealt with the local illness of children, I was surprised by cases in which the father, as a grown-up person, represented exactly the same type as the son. It was impressive when, in consultations about their sons, fathers appeared who, as healthy middle-aged men, offered the same adipose aspect, little characteristic for the male sex, beardless, with youthful, jovial, smiling faces—briefly, a type which in other conditions one would just call “corpulent.” Several of these men were kind enough to submit to examination. They had not the slightest local malformation but the relatively small development of external genitals which is so frequent in corpulent people. However, this had not impaired them physically or psychically. In three of these cases the fathers had several children, of whom only the boy treated by us resembled the father in features and constitution. From

these observations, I have no doubt that there is a *gradual transition from cryptorchism with dystrophia adiposogenitalis to a "normal" and sexually potent corpulence*

If we exclude such a large group from operation, the question arises which, if any, cases remain for surgical treatment. Yet there are numerous cases left. First, those in which the retention is *strictly one-sided*, second children whose general aspect refutes the presence of a hormonal disturbance. In my experience there are *two simple symptoms* which furnish a reliable clue for this diagnosis and, through this, for *operative indication*

One is the *outward aspect of the scrotum*. The flatter and more labium like the scrotum looks, and the tighter its skin, the worse is the present constitutional condition of the case. I say the present," because, as mentioned, this condition may improve during puberty. Contrariwise, a sac like scrotum with an abundance of folded skin bespeaks a functionally good prognosis when the descensus is still incomplete on one or both sides. Incidentally these are the only cases in which one may be entitled to explain a one sided cryptorchism by local factors.

The other symptom for differential diagnosis is the *slenderness or stoutness* of the child. In my experience there is hardly a slender wiry boy with a lasting double-sided disturbance of testis. Contrariwise, the slender muscular type of boy, the gymnast type is a reliable sign of a normal constitution and of good functional prognosis. However this does not mean that these cases if they are combined with a one sided retention have always had their good constitution. On the contrary it seems to me possible or even probable, that they have overcome a hormonal disturbance as embryos or infants. Therefore, I frequently declined to operate on cryptorchism in infancy. If later at the age of ten or twelve, such a slender boy comes for treatment of one sided retention of testis then one may operate. It is true that even then one may still observe a spontaneous descent of the testis, still, one will obtain by operation—provided the technic is correct—a success as would hardly be possible at this age without surgical treatment—a somewhat small testis at the bottom of the scrotum with the testis normally movable and without any tension towards the inguinal canal.

The above-described symptom of the general physical constitution is so dependable that we finally judged our young

patients from their *marks in gymnastics*. The round little boys with double sided cryptorchism are pitiful gymnasts through out. A good mark in gymnastics or a membership in a sport club speaks almost with certainty in favor of a *merely local disturbance*. In these cases one may be led by one's surgical temperament and the wish of the parents—i.e., one may wait for the dubious and often incomplete spontaneous descent, or try to obtain the optimal result immediately by operation.

Most impressive are those cases in which, through a sudden constitutional impulse during puberty, the poor and lazy gymnast becomes a good one, improves his marks in gymnastics, joins a sport club, etc. At the same time, one notices reduction of fat and building up of muscles, ripening of the external genitals can often be observed a few weeks later.

It may be added that the *breaking of voice* also belongs to the simple but dependable symptoms. I cannot remember one single adolescent whose voice did not correspond to the development of his genitals.

Conclusions for Treatment With Prolan and Other Hormones

While we were treating and observing these cases in the Urban Krankenhaus in Berlin, *prolan* was discovered. Our Medical Department (Director H. Zondek), distinguished for its work on *prolan* (B. Zondek) and other hormones of the pituitary gland, used *prolan* in treating boys with "Froehlich" disease and cryptorchism.

This treatment was in harmony with my own opinion that cryptorchism was the result of a hormonal disturbance. However, I was always cautious in accepting the extraordinary results of this therapy. As reported above we saw many patients of the "Froehlich" type with retention of the testis, who without any therapeutic measure suddenly recovered from their constitutional as well as their local disturbance. The body is able to produce spontaneously forces which, as a sudden impulse, carry the growing child into normal hormonal development.

Therefore I stressed the necessity of careful statistical comparisons between

TABLE III—MONTHLY MEDLAR INDEX COMPUTED

MODERATELY ADVANCED (16 patients)	Gained		Lost		Stationary
Index above 25 (definitely toxic) who remained above 25	4	1	2	1	
Index above 25 who fell below 25	1	1	0	0	
Index below 25 who remained below 25	10	7	3	0	
Index below 25 who rose above 25	1	0	1	0	
FAR ADVANCED (8 patients)					
Index above 25 who remained above 25	5	1	3	1	
Index above 25 who fell below 25	3	2	1	0	

A patient who gained thirty pounds was given the preparation at the beginning of the cure, with no previous record.

Attention should be drawn to the twenty-seven of the ninety-one patients who were either losing weight or stationary and who gained,

It will be seen that a larger percentage of the moderately advanced patients gained weight than did the far advanced cases. This, of course, is to be expected. On all these patients the routine treatment for pulmonary tuberculosis was continued. Where surgical intervention was indicated, it was used.

Thirteen patients had improved appetite without a gain in weight. Of these the weight remained stationary in seven and was reduced in six.

On twenty-four patients leukocyte counts were done every month and the results tabulated according to the Medlar index (Table III).

From this it will be seen that the

TABLE IV—ERYTHROCYTE COUNTS

Improved count.	15 or 79%
Average gain	1,000,000
Stationary	4 or 21%

weight curve rather closely follows the blood picture as charted by the Medlar evaluation. It is not suggested that the administration of this compound had any influence on the toxemia of these patients as reflected in the blood stream.

It is of interest to note that in those patients with a low Medlar index the percentage of weight gain was greatest. This, of course, is to be expected. It is also interesting to see the gain in weight in even a small percentage of those patients whose blood picture remained bad throughout the treatment.

In a total of nineteen patients total erythrocytic counts were done before the treatment was started and at monthly intervals thereafter (Table IV).

Summary

This compound (alcoholic extracts of garlic, cypress, eucalyptus, creosote, and menthol) is of definite value as a tonic in improving appetite and blood count and building-up weight in patients with chronic pulmonary tuberculosis. We do not believe that it has a direct effect on healing the disease but it is a valuable adjuvant in the treatment.

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DEADLIEST DRIVERS ARE BOYS

Death behind the driver's wheel, in the terrible annual auto accident toll, is not a grim, old, bearded man with a scythe. He wears the beardless face of a boy. Flaming youth at the wheel is the deadliest foe of today's highway-using public.

Remorseless statistics, presented before the American Association for the Advancement of Science by a critically analytic scholar, prove the indictment beyond possibility of denial. Dr. Harry M. Johnson, who led the study under the auspices of the Highway Research Board, sums up the case briefly and dramatically.

"If we pick the same number of drivers in each age group, and count the fatal acci-

dents that each group has, we find that those who are 45 to 50 years old kill the fewest persons in a year. While they are killing 66, the 16 year olds are killing 201, the 17 year olds 186, the 18 year olds 148, and those between 19 and 21 are killing about 215 persons for each 100,000 drivers on the road.

"The drivers older than 45 tend to become more deadly each year, reaching the average rate for the whole population about age 64 to 65 whereupon the rate suddenly falls. This decline may be due to the older drivers driving less and less instead of better and better"—Dr. Frank Thone *Science News Letter*, March 5, 1938, p. 150.

EVIPAL SOLUBLE RECTALLY IN OBSTETRICS

A Preliminary Report

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Introduction

It is our purpose in this preliminary report to review seventy-two cases in labor to whom Evipal Soluble was administered rectally. Evipal Soluble is not a new preparation as it has been employed intravenously for short anesthesia quite extensively here and abroad. This, however, is the first time it has been tried in obstetrics to produce analgesia and amnesia during labor by rectal administration.

We will not review the vast literature dealing with alleviation of pain during childbirth as that has been done time and again and is familiar to all. However, from the numerous publications we readily learn that, to qualify as an ideal obstetrical analgesic and amnesic, a drug must meet the following demands:

- 1 It must induce prolonged partial or complete relief from pain.
2. It must not retard the natural progress of labor
- 3 It must not induce excitability in the patient
- 4 It must not in any way affect either the baby or the mother

In this series of cases Evipal Soluble was given rectally because of the disadvantages of intravenous and oral administration of barbiturates. Most of these preparations taken orally produce gastric symptoms which are often quite distressing. Intravenous administration is almost universally condemned although some authors have reported good results with Evipal Soluble. In 1931 the Council of Pharmacy and Chemistry of the American Medical Association¹ strongly advised against the use of barbiturates intravenously in obstetrics in no uncertain terms. They list the disadvantages of intravenous administration of the barbiturates as follows:

- 1 Danger of asphyxiation of child and restlessness of the mother
- 2 The postoperative depression is prolonged
- 3 The anesthetic state continues and results in the lack of the patient's cooperation.
- 4 There is danger of pulmonary congestion and edema
- 5 Delirium and restlessness may require additional morphine
6. Special postoperative nursing care is indispensable.

Method of Administration

In our cases the criterion of administration of Evipal Soluble was active labor. By this we mean, regular, rhythmic contractions of the uterus with progressive dilatation of the cervix. In multiparae it was administered when the uterine contractions were every eight to fifteen minutes and the cervix was at least two cm. dilated. In primiparae, Evipal Soluble was given when the uterine contractions occurred at intervals of from five to ten minutes and the cervix was at least four cm. dilated.

Evipal Soluble was supplied in ampules of three Gm. This amount was dissolved in ninety c.c. of distilled water. To women weighing less than 150 lbs. thirty c.c. (1 Gm.) of solution was administered. In women weighing over 150 lbs. a dose of forty five c.c. (1.5 Gm.) was employed.

It was found early in our series that heavy women will readily tolerate the larger dose of Evipal Soluble. It was also noted that too small an amount administered failed to produce analgesia and amnesia. We started the series by administering thirty c.c. of solution routinely to all patients, but we quickly increased the amount to forty-five c.c. in all women weighing over 150 lbs.

The routine is as follows:

- 1 Enema ss
2. One hour later, the solution of Evipal Soluble is instilled in the rectum slowly

We gratefully acknowledge and thank the Winthrop Chemical Company for their supply of Evipal Soluble used in this series of cases.

through a rectal tube usually placed behind the presenting part with the patient lying on her left side. After removal of the rectal tube the buttocks are held closed for from three to five minutes.

3 Scopalamine, gr 1/150, is given by hypo immediately after instillation of the Evipal Soluble.

Results of Administration

Selection of cases The cases were grouped as follows PRIMIPARAE, 26 cases and MULTIPARAE, 46 cases.

These cases were not selected, all having been admitted consecutively to the service.

Cervical dilatations prior to administration

Fully dilated	6 cases
9 cm	1 case
8 cm	8 cases
7 cm	11 cases
6 cm	12 cases
5 cm	9 cases
4 cm	12 cases
3 cm	7 cases
2 cm	6 cases

State of membranes The membranes were intact in forty-five cases and ruptured in twenty-seven.

Uterine contractions The frequency of uterine contractions varied from every three minutes to every fifteen minutes on administration of Evipal Soluble. They were distributed as follows:

q 2 minutes	1 case
q 3 minutes	21 cases
q 4 minutes	7 cases
q 5 minutes	26 cases
q 7 minutes	3 cases
q 8 minutes	2 cases
q 10 minutes	4 cases
q 12 minutes	1 case
q 15 minutes	7 cases

Evipal Soluble had very little effect on the frequency of uterine contractions. In no case was labor retarded. In thirty-five cases the uterine contractions became more frequent and apparently this was not due to the drug but rather to the normal progress of labor.

Full dilatation Complete dilatation of the cervix occurred rather quickly under the influence of the Evipal Soluble. The time between the administration of Evipal Soluble and complete dilatation was as follows:

Within ½ hour *	{p 3 cases m 8 cases
½ to 1 hour	{p 3 cases m 15 cases
1 to 2 hours	{p 2 cases m 10 cases
2 to 3 hours	{p 7 cases m 3 cases
3 to 4 hours	{p 3 cases m 4 cases
4 to 5 hours	{p 1 case m 1 case
5 to 7 hours	m 3 cases
7 to 10 hours	{p 3 cases m 1 case
Over ten hours	{p 4 cases m 1 case

* Including those already fully dilated.

The twelve cases where full dilatation took more than five hours require some explanation.

One case was fully dilated five hours after administration of Evipal Soluble, an R O P which rotated spontaneously and delivered as an L O A. Evipal Soluble was effective for delivery with a few whiffs of ether.

One case was fully dilated eight hours after administration of Evipal Soluble which was effectual for delivery with a whiff of ether, R O P position which rotated spontaneously.

Two cases were fully dilated more than ten hours after administration of Evipal Soluble. Both were posterior positions. A second dose of thirty cc was administered to each and both were effectual for delivery.

One case was fully dilated more than ten hours after administration of Evipal Soluble. R O P position. Case of twins. The drug was effectual for delivery with a few whiffs of ether.

One case was fully dilated more than ten hours after administration of Evipal Soluble. Case of marked cervical dystocia, the drug was not effectual for delivery.

Two cases were fully dilated more than ten hours after administration of Evipal Soluble. It was not effectual for delivery. A second dose was not given. Delay of dilatation was due to faulty position and/or arrest of presentation. It is quite possible that had a second dose been administered, delivery would have been effected under its influence as noted in two of the cases.

One case was fully dilated more than ten hours after administration of Evipal. A second dose was given which was effectual for delivery without supplementary anesthe-

sia even through low forceps and episiotomy had to be done. Case was an L.O.P. which rotated spontaneously

One case was fully dilated six hours after administration of Evipal, effectual for delivery with a whiff of ether

One case was fully dilated nine hours after administration of Evipal, effectual for delivery with whiff of ether

One case was fully dilated seven hours after administration of Evipal, effectual for delivery without further anesthesia

Operative deliveries There were comparatively few operative deliveries in this series. Fifty-six cases were delivered spontaneously, while in sixteen the use of forceps was necessary

Supplementary anesthesia Fifty-six cases did not require any further anesthesia during the delivery. Ten required a few whiffs of ether or nitrous oxide when the head was being delivered. Some of these cases were low forceps. This supplementary anesthesia was very slight and only momentarily given. In six cases complete anesthesia was necessary, as the Evipal Soluble was not effectual for delivery, the action apparently having worn off due to prolonged and slow dilatation of the cervix

Postpartum hemorrhage There was not a single case of postpartum hemorrhage.

Effect of Evipal Soluble on newborn Evipal Soluble had no deleterious effect on the newborn. Sixty-one of the babies cried spontaneously after delivery and required no resuscitation of these eleven were slightly cyanotic though they cried spontaneously, the normal color appearing soon thereafter. Nine infants did not cry spontaneously and required resuscitation: one crying within five minutes, six within ten minutes and two within fifteen minutes, two having had coils of cord around their necks which may have accounted for the failure of spontaneous resuscitation. There were three stillbirths, not in any way due to Evipal Soluble. There was one case of twins which accounts for seventy-three babies in seventy-two cases

The pediatrician on service at the time, reported no change in the babies as to the occurrence of atelectasis, feeding, crying or breathing difficulties that may have been due to Evipal Soluble.

Analgesia and amnesia occurred within

a short time after administration of Evipal Soluble as follows

Within 2 minutes	1 case
3 "	1
5 "	3 cases
7 "	7
8 "	5
9 "	3
10 "	22
12 "	3
15 "	15
20 "	8
30 "	2

All cases showed some degree of analgesia after administration of Evipal Soluble and fifty-two were completely analgesic and amnesic. Eighteen patients were analgesic but not amnesic, the so-called drowsy or partial cases. Of the latter, six women had prolonged labors and the effect of Evipal Soluble wore off, requiring complete anesthesia for delivery. In the other twelve, it was effectual with an occasional whiff of ether or nitrous oxide. These eighteen patients slept between contractions but during the pains awoke and were almost fully conscious

Duration and effect of Evipal Soluble The duration of the action of Evipal Soluble was comparatively short, for most patients were well-oriented within three hours postpartum. The cases were distributed as follows

Within 1 hour	9 cases
2 "	12
3 "	17
4 "	12
5 "	4

Eighteen cases were almost well oriented at the time of delivery, six of which were completely recovered from the action of Evipal Soluble. The other twelve were the drowsy cases and were conscious of the pains and the delivery although they slept between the pains

The nurse on the ward reported the following

1. There was no restlessness on the part of the patient

2. No restraining apparatus or sideboards were used and neither were they necessary

3. On awakening the patients inquired as to when they had been delivered manifesting complete surprise

Effect on blood pressure There was a definite effect on blood pressure. Read-

TABLE I—COMPARATIVE TABLE

	Adminis- tration	Analgesia	Amnesia	Supple- mentary anesthesia	Operative Interference	Post partum Hemorrhage	Restless- ness	Narcosis of mother post partum	Narcosis of baby	Effect on Blood Pressure (systolic)
Evipal Soluble	Rectally	80% com- plete, 20% partial	75% of cases	About 4% of cases	2% of cases	None	No res- traint necessary	All were oriented in 5 hrs. 80% in 3 hrs.	90% of babies cried spontan- eously	Drop of 10-20 pts.
Dial ²	Intra- venous	Good-75%, poor-25%	Good-45%, poor-55%		25% of cases		Marked in 30% of cases	10% of cases asleep 12 hrs. post partum	10% showed mental asphyxiation 10% only slight	Rise of 10-15 pts.
Sodium ³ Amytal	Oral	Good-80%, poor-20%	Good-70%, poor-30%	Almost 100% of cases	18% of cases	12% of cases showed loss over 300 c.c.	17% needed restraint very marked often man- iacal	Many asleep for 12 hrs. postpartum	Only 61% breathed spontan- eously	Drop of 10 pts.
Avertin ⁴	Rectally	Good-50%, poor-50%	Good-10%, poor-90%	50% of cases	30% of cases	Marked in 30% of cases	Marked in large % of cases	Slept for 2-4 hours postpartum	0% were asphyxia- ted	Drop of 10-20 pts.
Pernoctan ⁵	Intra- venously	Good-60%, poor-40%	Only 42% had com- plete amnesia	Over 50% of cases	25% of cases	10% of cases showed loss over 300 c.c.	15% were marked needed re- straint	10% of cases asleep 10- 12 hours	Only 53% of babies breathed spontan- eously	Drop of 20 pts. in 20% of cases
Nembutal ⁶	Oral	About 75% had anal- gesia (10% complete failures)	About 60% had am- nesia	80% of cases	60% of cases	Moderate increase in blood loss. Some had marked pp hemor- rhage	Marked re- quired nur- sing atten- tion almost constantly	Most cases asleep 5 hrs. pp 5% of cases asleep 12- 20 hrs.	About 30% of babies required some re- suscitation	

ings were taken before administration, at the time amnesia occurred, and during amnesia (1-2 hours later) The results were

No change in blood pressure	30 cases
Drop of 5 to 10 points	22 "
" of 15 to 20 points	6 "
" of 25 points	2 "
" of 50 points	1 "
Rise of 5-10 points	9 "
" of 20 points	2 "

In those cases where the drop of blood pressure was greatest, the blood pressure was high, 150 or more. In patients with low blood pressure, there was no reduction. Hence it is suggested that Evipal Soluble might be used to advantage in hypertensive cases during or before labor.

Comparative studies. In the accompanying table our results with Evipal Soluble are compared with those obtained with other agents as reported by various

authors. They demonstrate that Evipal Soluble possesses a number of advantages over the customary preparations, particularly as regards the lowered incidence of by-effects including hemorrhage, retardation of labor, restlessness, and excessive narcosis of mother and baby.

Conclusions

1 Evipal Soluble is a safe analgesic and amnesic to be used rectally in obstetrics.

2 There are no deleterious effects on either the parturient mother or the infant.

3 The method of administration of Evipal Soluble is simple.

4 No special nursing is necessary.

5 Repeated doses may and should be used when necessary.

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PRIMARY HEPATOMA OF THE LIVER

With Tumor Thrombosis of the Inferior Vena Cava and Heart

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While tumor thrombosis of the portal vein secondary to primary carcinoma of the liver is uncommon, malignant invasion of the inferior vena cava is distinctly rare. Goldzieher and Bokay,¹ Smith,² and Winternitz³ did not observe tumor thrombosis of the inferior vena cava in their series of cases nor did they call attention to it in their reviews of the literature. In a report of eighteen cases of obstruction of the inferior vena cava due to various causes, Pleasants⁴ cited no instance of a tumor thrombosis of the inferior vena cava following a primary malignancy in the liver. Rowen and Mallory⁵ reported a multinucleated liver cell carcinoma with tumor thrombosis of the inferior vena cava, no post-mortem examination was done so there may be a question whether the carcinoma in the liver was primary or secondary. Fabian⁶ reported a case of primary hepatoma of the liver with extensive tumor thrombosis of the inferior vena cava

of the skin and mucous membranes the head and neck were essentially negative. Heart and lungs were not remarkable. The abdomen was symmetrically enlarged, and the superficial veins in both flanks were prominent. The abdomen was tense to palpation no hepatic or splenic tumor could be felt. The percussion note was tympanitic throughout and shifting dullness or a fluid wave could not be elicited. There was no adenopathy. The extremities appeared normal. There was no impairment of the reflexes. No lesions were present on the external genitalia. Examination of the rectum which included sigmoidoscopy revealed no significant findings.

On admission the temperature was 100.6° F pulse eighty and blood pressure 115/90.

Laboratory data. Repeated urinalysis showed traces of albumin and occasional

Case Report

T C., a white male, fifty-seven years of age, was admitted to the Nathan Littauer Hospital on March 11 1936 complaining of epigastric distress, swelling of the abdomen, weakness and constipation. His father died of a stomach malignancy at the age of sixty-two. For sixteen years the patient was stationed with the Marine Corps in Panama and Cuba but no history referable to tropical diseases could be elicited. Alcoholism was denied. The patient enjoyed perfect health until one year ago when he began to suffer with constipation. This increased progressively and finally necessitated the daily use of cathartics. For the past four weeks he had complained of discomfort in the epigastrium, not related to meals, and progressive enlargement of the abdomen. There were no melena hematemesis jaundice, or changes in the stools. Otherwise the history was essentially negative.

Physical examination. The patient was a moderately nourished white male in no acute distress. Except for moderate pallor



Fig 1 Cross section of liver showing primary hepatoma of liver



Fig 2 Secondary tumor thrombosis of inferior vena cava and portal vein

granular casts. The urea nitrogen per 100 cc of blood was twenty-six mgm. The hemoglobin (Newcomer) was sixty-nine percent. The red and white cell counts were 4,000,000 and 12,400 per cumm, respectively, and a differential count of 100 cells showed seventy-four percent polymorphonuclear leukocytes, twenty-two percent lymphocytes, three percent monocytes, and one percent eosinophiles. The stools were negative for occult blood. Kahn and Wassermann reactions were negative. The icteric index was ten units. Radiograms following the administration of a barium enema strongly suggested an obstruction at the hepatic flexure.

Clinical course Decompression of the bowel attempted by the usual conservative methods for one week failed. The patient was given 600 cc of citrated blood and on March 20, (nine days after admission) under gas-ether anesthesia, exploratory laparotomy was performed for a supposedly obstructing lesion at the hepatic flexure.

The intestines were found to be edematous and about 200 cc of clear yellow fluid in the abdominal cavity was removed. No intestinal obstruction could be found,

but the colon at the hepatic flexure was very boggy. The liver was definitely enlarged, hard, smooth, and gray in color. Further exploration revealed nothing of note.

Following operation, the patient became steadily worse and on March 22, became markedly edematous from the ankles up to both flanks. Severe dyspnea supervened, and exitus occurred the next morning.

Necropsy (By Dr Richard J Lebowich). The abdomen contained no excess fluid. The liver weighed 2750 grams. The right lobe presented a bulging, non-encapsulated, irregular mass situated directly beneath the capsule (Fig 1), measuring 5.5 cm in its widest diameter, and showing a fine, granular, pinkish-gray surface mottled by extensive, irregular areas of yellow necrosis. The primary growth was not bile stained. No secondary malignant nodules were found, but about six-eight branches of the hepatic and portal veins within the liver were occluded by friable tumor thrombotic tissue. The portal vein was completely obstructed by a tumor thrombus measuring two cm in circumference, extending outward from the hilus of the liver for a dis-

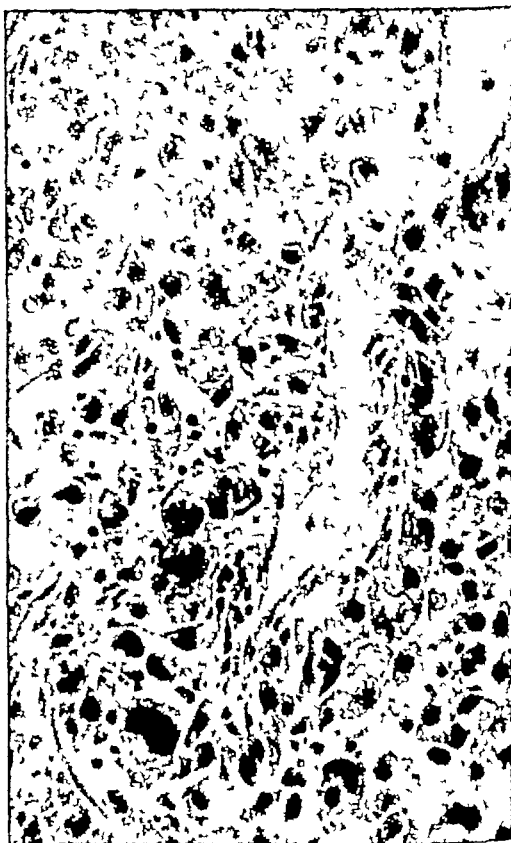


Fig 3 Cellular structure of primary hepatoma showing anaplasia and capillary stroma

tance of 4.5 cm. To this was attached peripherally a firm, antemortem thrombus measuring six cm in length. Dissection of the superior mesenteric, splenic, and other veins in this region showed no occlusion by tumor thrombi. The inferior vena cava at its exit from the liver (Fig. 2) showed a tumor thrombus similar to that present in the portal vein measuring 6.5 cm in diameter and four cm in length from the point of its emergence from the liver. The inferior cava was enormously distended at its entrance into the liver by a firm, antemortem thrombus which extended down into the common internal and external iliac veins.

Attached to the wall of the right auricle near the appendage was an antemortem thrombus similar in appearance to the primary hepatoma. Examination of the lungs and of the other thoracic and abdominal organs revealed no gross evidence of primary or secondary malignancy. The entire right lung was the seat of a confluent bronchopneumonia.

Microscopic examination of the primary newgrowth showed a malignant anaplastic

hepatoma (Fig. 3), predominantly diffuse and alveolar in arrangement associated with a precancerous atrophic cirrhosis. Frequent malignant invasion of the portal and hepatic venous radicles were present as well as of the lymphatics in the periportal spaces.

Conclusion

A case of primary hepatoma of the liver supervening upon an early atrophic cirrhosis with massive malignant thrombosis of the inferior vena cava followed by a tumor thrombus to the right auricle of the heart is described.

(EGG) 26 E. MAIN ST.
(HEE) 42 FIRST AVE.

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FIRST AID IN BURNS

Among the tedious chores necessarily performed on the emergency services in general hospitals is removal of greasy substances applied to burns prior to admission. This has occurred in a majority of such instances and the grease has represented practically every unctuous material in existence—butter lard, bacon grease, and hair oil among the rest. Their removal is essential before application of tannic acid or tannic acid and silver nitrate, and not infrequently entails use of a general anesthetic a fat solvent, and even a scrubbing brush. Thus hazards of anesthesia and added shock augment a situation already serious.

Strange enough, in some instances it is found that telephone suggestions given by the family doctor have been explicitly followed.

For example a distraught mother phoned that a croup kettle had overturned and severely burned her small boy. The doctor apparently unaccustomed to thinking of burns in the light of modern therapeutic considerations ordered that the areas be promptly smeared with a concoction of half unguentine and half vaseline. The burn covered about one fourth of the body surface, and the original "treatment" was continued. The course was stormy and

dangerous, toxemia fever and nephritis comprised a foreboding picture. At the end of a month, the patient's temperature consistently rose to 103 degrees and the stench of decomposing tissues and encrustations made his room unlivable. He ultimately recovered in spite of not on account of his treatment.

Compare this situation with that of a typical and comparable case treated with tannic acid and silver nitrate and placed under a heat cradle. Slight fever for two or three days and none after that no perceptible degree of shock comfort without any sedation after a day no dehydration and no odor complete recovery with minimal or no residual distortions or contractures after three to six weeks.

To be specific, had the doctor told the mother to saturate the area with strong tea and phoned his druggist to prepare bottles of five per cent tannic acid and ten per cent silver nitrate solutions which he would call for on his way to the child weeks of distress and danger would have been averted. Good treatment would have been started immediately—with none to be undone. A little act of this sort rehearsed in a moment of composure will assure a wise course of action when the emergency occurs.—*Rocky Mountain Medical Journal*

MENINGOCOCCUS SEPTICEMIA

Treated by Fever Therapy

MILTON BENJAMIN ROSENBLUTH, M D and DE WITT STETTEN, JR, M D,
New York City

Visiting Physician Bellevue Hospital (MBR)

*From the Department of Medicine, New York University College of Medicine and the
Third (New York University) Medical Division of Bellevue Hospital*

Certain biological similarities between the gonococcus and the meningococcus suggested the possibility that infections with the latter organism might be as favorably affected by fever therapy as infections with the former. In the case here recorded, a prolonged infection by the meningococcus and the impracticability of continued serum therapy because of the sensitivity of the patient presented us with an opportunity to test the validity of this idea.

The patient, thirty-seven year old male, was admitted to the hospital on February 23, 1936. The present illness began six days before admission to the hospital, at which time he was suddenly seized with a violent chill. Following this there were recurrent chills frequently until the day of admission. On February 22, one day before admission, he developed a severe frontal headache, vomiting, and stiffness of the neck. No rash had been noted.

Examination showed the patient to be very prostrated. There was slight cyanosis of fingernail beds. The heart, lungs, and abdominal viscera showed nothing noteworthy. The neck was rigid and there was a Kernig sign but no other abnormal neurological findings.

The urine contained a trace of glucose but was otherwise negative. The blood count was Hemoglobin nine Mg, erythrocytes 4,100,000, leukocytes 22,000 with eighty-eight per cent polymorphonuclear cells. The spinal fluid was turbid and contained 2,400 cells with ninety per cent of polymorphonuclear cells.

The patient was given twenty c c of anti-meningococcus serum intrathecally.

The following day meningococcus was reported in the culture of the spinal fluid. The patient at this time refused further intrathecal treatment but on March 1, eight days after the first treatment, he was persuaded to permit another spinal tap and twenty c c of antiserum was given. Spinal taps on March 3 and March 5 were clear.

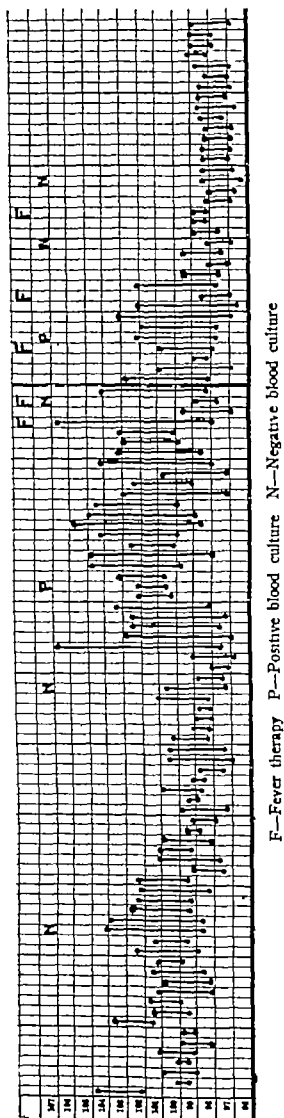
On March 10 he had a chill with rise of temperature to 104° F. No spinal tap

was done on this day because he refused to permit it. The temperature now began to be remittent rising each day to about 101° F and continued so without other symptoms or signs for three weeks. Agglutination tests for typhoid and mellitensis were negative. The lungs were clear on physical and x-ray examination. Blood cultures were negative.

On April 1 several hemorrhagic areas appeared about the right wrist and in the right conjunctiva. Another blood culture taken on April 3 was negative, nevertheless it was suspected that the patient was suffering from a meningococcus septicemia and it was considered advisable to give antiserum intravenously. Because over five weeks had elapsed since the previous serum injection, desensitization was carried out by the use of minimal doses of diluted serum given first subcutaneously, then intramuscularly, and finally intravenously. Following the injection of the serum intravenously the patient had a severe anaphylactic reaction and the temperature rose to 105° F. Another attempt to give serum intravenously was made on April 8 but after two c c of serum had been given there was a severe reaction. Intravenous serum therapy was then stopped and serum by intramuscular injection was started. Ninety c c of undiluted serum was given in divided and ascending doses. On April 13 the blood culture was positive for meningococcus and there was a new crop of macules and papules in the skin. Another attempt was made to give serum intravenously and again a similar reaction resulted, this time with frank hematuria. The temperature at this time was of the septic type, rising each day to between 104 and 106° F.

Because serum therapy was no longer practicable and the patient was getting progressively weaker and more anemic (hemoglobin of seven Gm and 3,000,000 erythrocytes), it was decided to attempt treatment by hyperpyrexia. On April 29 the temperature of the patient was raised to 106° for two hours. The following day the patient felt well and no new skin lesions were noted. The peaks of the temperature curve on the

CHART I



following two days were 99.4 and 98.6° F while the peaks for every day of the preceding three weeks had been between 102 and 106° F.

The blood culture taken on May 1 was negative. Encouraged by what appeared to be a favorable effect the fever treatment was then repeated. At this time the temperature was raised to 106.6° F for four hours.

Following this treatment the temperature began once more to spike going up each day to between 101 and 103° F and on May 7 the blood culture again showed meningococcus. It was decided therefore to give further and more intensive fever therapy and on May 11 the temperature was raised to 106.8° F and maintained close to this for five hours.

Twenty four hours after this fever treatment the temperature dropped abruptly to normal and during the following week never rose above 99° F. There was a marked diminution in the number of new macules which appeared and except for weakness and general prostration the patient was much improved. Nevertheless it was thought wise to repeat the fever treatment once more and on May 19 the temperature of the patient was raised to 107° F and maintained close to that for over six hours.

No further rise in temperature occurred and no new skin lesions appeared. On May 21 the spinal fluid was found to be clear with glucose present, globulin absent, and culture negative. Blood cultures on May 26 and June 1 were negative. Except for a slight edema of the feet, which appeared shortly after the last fever treatment the patient's recovery was steady and uneventful. He was discharged to a convalescent home on June 11 and when he last reported in September he was completely restored to health.

Comment

That the fever therapy was responsible for the recovery of this patient is suggested by the abrupt improvement which followed its use. It is especially suggestive when the duration of the infection up to this point (10 weeks) is considered.

This method of treating meningococcus infections would seem to be worthy of further trial and appraisal especially in such cases as are resistant to serum or in those, like the case here recorded, which are serum sensitive.

I can find no case of meningococcus infection treated by fever therapy recorded in the literature.

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EDITORIALS

Same Story

Recent studies by the National Health Survey tell a story which is old to physicians but to which the advocates of compulsory sickness insurance persistently close their ears. Poverty promotes illness, and the greatest need for medical care exists in classes which obligatory insurance would not aid.

According to the latest report of the United States Public Health Service, for example, there is eighty-seven per cent more chronic illness among the relief population than in higher income groups. The relief population would not be eligible for health insurance, as organized medicine has repeatedly pointed out. It would benefit, however, by the creation of a permanent system of home medical relief.

After almost ten years of depression, it is futile to cherish the illusion that all, or even the greater part, of the idle can be restored to gainful work within the next few years. It is time to abandon the doctrine of emergency, with its implied excuse for inefficiency and waste, and develop a permanent system of medical and other aid for the unemployed and permanently unemployable.

It is noteworthy, in the National Health Survey's studies, that medical care is most often lacking in communities with few physicians and meager hospital facilities. Here the higher income groups as

well as the relief and low income population receive less service than in large cities, where there is an adequate supply of physicians and medical institutions.

This again is a situation for which compulsory sickness insurance provides no remedy. A sparsely settled area would not provide enough panel patients to attract an insurance doctor without some extra subsidy. With such subsidy, or a guarantee of income, compulsory insurance is not necessary to bring in a physician.

As organized medicine has repeatedly stated, there is neither a single health problem nor a single solution in a country as large and varied as this. The requirements of each community must be studied individually and remedial measures based on local needs.

No More Sanctuary

It is a sad commentary upon twentieth century civilization that the bombing of hospitals has become commonplace in the news. The protests which at first greeted this unpardonable outrage grow daily fainter as the world becomes inured to horror.

Unless decisive steps are taken to protect the hospitals from the mad dogs of war, the world is threatened with disease and suffering on an unprecedented scale.

Death, exultant on the battlefield, is not fed by shot and shell alone. Rats, fattening on the dead, lice, waxing fat on the blood of the living, bacteria lurking in filthy latrines and contaminated springs, spread pestilence as deadly and more far reaching than any machine-gun or heavy artillery fire

If medical men are allowed no sanctuary to repair the wounds of war and check the spread of plague the world may witness deformities and pestilential horrors which will put the black death of the fourteenth century to shame

In China, with cholera flaring up under the stimulus of war, the Japanese are deliberately bombing hospitals, according to the testimony of many foreign observers, including physicians. The Red Cross was frequently the target of Italian bombers in Ethiopia. The destruction of medical centers, particularly in countries where institutional facilities are limited, is war on noncombatants no less than the bombing of civilians is

Medical organizations all over the world should lift their voices in protest against the bombing of hospitals. The treatment of the sick, the rehabilitation of the wounded are works of mercy which know no nationality or political ideology. From the viewpoint of sheer self-preservation moreover, the peoples of the world should be made to realize that the destruction of medical facilities in one country is a threat to all in an age when rapid transportation may spread disease as well as blessings

The American Doctors Speak

There has come to our attention an extremely important statistical analysis of the attitude of the medical profession concerning several pertinent questions which at present command the earnest attention of social workers, government officials, the lay press, and the profession as well. Under the sponsorship of the publication *Modern Medicine*¹ a Physicians' Refer-

endum on Socialized Medicine" elicited responses from 16711 physicians located in all sections of the United States. This expression of opinion on the part of more than ten per cent of the physicians in our country can be viewed as an authoritative representation of the profession as a whole. While as *Modern Medicine* states "Literally millions of comparisons of opinion can be obtained from the statistical data given here," certain facts nevertheless stand out as irrefutable. This is supported by the fact that of 125,000 ballots sent out in May 1938, 135 per cent were returned, *postage paid by the voter*

The present clamor for a change in the manner in which medical care is now being given to the people of our country meets with a rejection by sixty seven per cent of the physicians, even though the use of public funds to help provide care for the medically indigent is favored by fifty-four per cent. But even here, doctors favor the use of local rather than federal funds. In other words, they support the contention that the provision of adequate medical care is a community problem, the solution of which varies in each individual instance. Despite the attacks made on organized medicine in the lay press and elsewhere for its stand against the more rabid of the socializers doctors, when given the opportunity to express their individual opinions are solidly behind their organization (84%). It is to be expected that members of the American Medical Association approve the policies of this body (86%). More significant is the fact that sixty-eight per cent of non-members are also ardent endorsers and have confidence in the ability of organized medicine to formulate a plan for the wider distribution of a *high standard* of medical care.

The returns from our state show us to be as one with the rest of the physicians in our nation. It is the general opinion among doctors that the public does not want a change. We are confident that if each physician conducted a referen-

¹ *Modern Medicine* 6:52 1938

dum among his own patients this would be overwhelmingly substantiated. It might not be a bad idea to find out what the people themselves want so that the American system of medical practice, which has lowered the mortality and morbidity of the nation and increased the span of human life will have the full support for its continuation of those whom it serves.

Protamine Insulin Therapy

With the introduction of protamine insulin in the treatment of diabetes two and one-half years ago, a great number of reports appeared which indicated that its use maintained a reduction in blood sugar for a longer period of time than did the soluble insulin. This was a distinct advance, and protamine insulin was employed widely despite the fact that during this early period no follow-up records were available. It was hoped that because of its prolonged action on the blood sugar it would supplant soluble insulin in most cases and so cut down the daily dose.

Ralli, Fein, and Lovelock¹ have observed a group of sixteen patients over a period of time varying from eight to twenty-three months. When the amount of soluble insulin required to prevent glycosuria was determined, these patients were then put on protamine zinc insulin. In five it had to be discontinued because it was impossible to control a significant appearance of glycosuria without producing reactions. These reactions were followed by severe headache, which carbohydrate did not control. In eight cases, supplemental injections of soluble insulin are necessary but the total number of daily injections has been reduced from four to one or two. The number of combined units required was decreased in five, and increased in three. Only the remaining three cases could be safely controlled with protamine insulin alone, and

these have benefited considerably under this means of therapy.

The authors found that a favorable response to the protamine preparation for the first few months is no assurance that the patient will continue to be helped. This they feel is due to an inconstant absorption. Consequently, the conclusion which one can draw from this work is that the institution of protamine insulin therapy necessitates prolonged study in each individual case before soluble insulin can be dispensed with or materially reduced in quantity. The closest supervision of the patient is essential, lest after a few months of use, alternating periods of severe glycosuria and hypoglycemia with its attendant shock phenomena appear.

CURRENT COMMENT

"THE ISSUE FACING OUR profession is *not* Shall we have collectivism or individualism, but *rather* Shall we have collective medicine operated by politicians on a compulsory basis, with lay control of medical matters—or, shall we have collectivism on a voluntary basis operated co-operatively by the physicians and their patients, with the control of medical matters invested in our own professional organization?"—An excellent question, posed by the editor of the *Westchester Medical Bulletin* in its July issue.

"THE MOST DAINTY AND MENACING of Decoys is that of the Misleading 'Federal Subsidy'" is the title of editorial in the July *Illinois Medical Journal*. We quote the editor's opinion on the topic: "In order to gain its point the bureaucracy is willing, whether able or not, to subsidize anything and everything from medical research, hospitalization, care, group practice and every the line, with any and all ideas all springing from that the practitioner science itself may, government an instrument ism, A the foreign tion has al

¹ Ralli, E. P., Fein, H. D. and Lovelock, F. J. *Am J Med Sc.*, 1962, 28.

control extends not only to the sort of medical care the people receive but also to the sort of medical education citizens may receive, and to the number of people who may study medicine. The drastic tyranny of this is perhaps unsuspected until it is connoted that this government control is not bested in scientific persons but most largely among the laity

"There is no exaggeration in the statement that one of the most dangerous of federal subsidies that could ever be extended to any industry or profession is that for which propaganda is now most active and which if it succeeds will turn over to the federal government the control and the standardization of medical schools. Through such subsidies and by the determination of curriculum and of administration of service the government would attain the right to practice medicine."

"AT LAST, A PURE FOOD DRUG AND COSMETIC LAW. Almost unnoticed in the rush of business at the close of Congress has been the fact that a new law was accepted by both Houses and signed by the President. More than thirty years ago, the first 'pure food law' was written. It was never very strong and had been urgently in need of revision for many years. The new measure is about half way between a really good bill and nothing at all. Its greatest

weakness is perhaps the fact that advertising is not properly regulated, being subject only to the action of the Federal Trade Commission, which never moves until misbehavior has already taken place, and is often so late that its action is ineffective. Standards for food will be set up, but the customer will still be unable to know what grade he is buying. These standards, moreover, refer only to poisons, adulterants, etc., and not to the quality of the product itself. Soap is not included under cosmetics as it should have been.

'On the good side of the ledger we find that new drugs may not be sold until they have been thoroughly tested—which will prevent another sulfanilamide scandal. Habit forming drugs must be properly labeled. Cosmetics dangerous to health are forbidden, except poisonous coal tar hair dyes, which may be sold if properly identified. The active ingredients of drugs must be listed, and also of foods if two or more ingredients are blended. Therapeutic devices are at last under control.

'With the five year battle ended we hope it will not begin again. We should like to see a really good bill introduced at the next session of Congress. If the patent-medicine gang and their friends are to keep us from an effective law, at least let's make them know they've been in a fight'—An encouraging news report in *The New Republic* of July 20

500 000 VICTIMS OF DAILY INJURIES

Ten million accidents serious enough to disable their victims one day or longer occur annually in the United States, says a Washington press dispatch.

Each day 500 000 persons are unable to work, go to school or pursue their usual activities as the result of injuries caused by accidents resulting from multiple sources, the Public Health Service announces.

The service discloses that seven per cent of the deaths among the 70 000 families canvassed were the result of accidental injury. Accidental deaths were exceeded only by mortalities from disease of the heart, cancer and pneumonia.

It was revealed that sixteen of every 1 000 persons are disabled for a week or longer by injuries each year. The average period of disability experienced by the victims of serious accidents is forty-six days. This is compared with the average dura-

tion of disability from all causes, which is fifty-seven days. Automobile accidents average fifty-five days of disability.

Mince pie and doughnuts, waffles, tarts and cake
Give little children a dreadful stomach ache
Roast beef and spinach, bread and milk and eggs
Make them all grow stronger, head and arms and legs

—*Onondaga Medical Bulletin*

"That will be enough out of you," said the doctor as he stitched the patient together
—*Pacific Marine Review*

Public Health News

Public Health Notes

J ROSSLYN EARP, L R C P, Dr P H
New York State Department of Health

Of the Same Kidney

The large audience of health officers and public health nurses which met on June 28 in Saratoga Springs waited with a trace of anxiety for the address of the president of the Medical Society of the State of New York. The program had gone to press before the title of his paper was received. The unknown is always a trifle awe-inspiring, especially to those who have strayed from the herd. What verbal castigation might be in store for us, the black sheep of state medicine, at the mouth of the messenger of our white woolly tribe?

Anxiety was groundless. Dr Groat had come to tell us that we do belong in the herd. "For a considerable number of years medical societies, both State and National, have recognized public health administration and public health medicine as a medical specialty." He went on to speak of our cooperative enterprises. The pneumonia control program he described as "work which will stand for all time as a model for other cooperative health programs." He praised the joint efforts of public and private medicine in the campaign to control syphilis and exhorted us to a similar joint effort for the control of cancer. Our interests as men of science are identical. We are of the same kidney.

This seems to me exactly the right phrase. For the virtues that reside in the kidney (and are found sometimes in the heart as well) are the fundamental virtues. When the psalmist asked God to examine him and

try his reins, he was exposing something very like his soul. It is a fact worthy of emphasis that the things which belong in our kidneys are not destroyed when we receive a salary from the State. Dr Musser* wrote recently

To me, and to most doctors, the idea of a future socialized medicine is a step backward. We look on it with abhorrence. We do not believe that it will help the patient, and we feel confident that it will destroy professional initiative and self-reliance, but most of us know in our hearts that, while methods may change, human nature is usually the same from generation to generation. The will and ability to enjoy life are inherent in the individual. He will get pleasure, profit, and satisfaction out of doing a job well whether under the aegis of an official or under his own personal supervision.

Those of us who have tried both methods of earning our living can certify that this is true. It is sometimes a little irksome to work under the official aegis. Yet all of us must endure the irk to a greater or less degree. I heard recently of a doctor who undertook to control scarlet fever on a dairy farm by private quarantine, even to the extent of keeping children out of school. Of course, it did not work. The public prefers the recognized official method. We are none of us completely free to follow our own devices however pure our intentions, and the discipline which binds more severely us hired servants of the State still leaves us our professional respect. We are of the same kidney still.

* Musser, John H. *J.A.M.A.* 109 323, 1937

'PEP PILLS' AND TIRED DOCTORS

Overworked doctors who feel they need a pick-me-up may find a warning in a letter written by a Nevada physician to the *Journal A.M.A.* He writes

I am a neurasthenic doctor 65 years of age and when some months ago a sample of benzedrine sulfate fell into my hands with the accompanying literature I had to try it. It worked like a charm, if I got up in the morning feeling somewhat dragged out and took a tablet of benzedrine sulfate I felt pretty well

all day and could do my work without tiring, the result was that I took it almost daily. Before very long I got so I couldn't sleep and couldn't eat. I have never been much of an eater but could eat reasonably well. It never occurred to me that the benzedrine sulfate could be at the bottom of it and I had a gastrointestinal series run and a rectal examination made, it finally dawned on me that the benzedrine sulfate had something to do with it and I promptly stopped it. I can now sleep pretty well but have not as yet recovered my appetite.

HOUSE OF DELEGATES

MINUTES OF THE ANNUAL MEETING

May 9 and 10, 1938

67 Revision of Principles of Professional Conduct

Section 80

DR. ORRIN S. WIGHTMAN, *New York* I offer this resolution tonight because of the difficulties experienced in the workings of our Grievance Committee of exercising any jurisdiction at all except under the Sections 1264 and 1265 of the Medical Practice Act. That includes only deceit and fraud in the practice of medicine. There are many things going on which come before us in our Grievance Committee that really come under the heading of ethics, and it is time we got started. The Reference Committee who will take care of this will be a committee of five I trust, and will report at a subsequent meeting so that we can get a basic law on ethics. The subject is debatable. The County, State and National Societies have shied away from it, but I had my inspiration from the Academy of Medicine where our present Publicity Committee tried to codify certain principles in connection with talks over the radio and written articles that should govern the general conduct of publicity by the medical profession. I therefore, read you this resolution

"Resolved that inasmuch as the Principles of Professional Conduct of the Medical Society of the State of New York, under date of 1935 are in a general way valuable suggestions but not binding as to the professional conduct of physicians and

"WHEREAS the present need of both the profession and the public demands a more definite outline of what constitutes ethics therefore be it

Resolved that a Committee of five be appointed to simplify revise and codify these ethical principles so that they may be binding and more than a guide to the medical profession."

SPEAKER KOPETZKY That is referred to Reference Committee on New Business A.

68 Report of Reference Committee on Council Report No. III.—Journal—Directory—Technical Exhibits—Directory Frequency—Supplementary Report of Trustees

DR. H. M. HICKS *Montgomery* Your Committee has had for its consideration *First* The Journal. *Second* The Directory *Third* The technical exhibits. *Fourth* The supplementary report on directory frequency *Fifth* Recommendations (1) and (2) of the supplementary report of the Board of Trustees

Continued from June 15 July 1, and July 15 issues.

It is not inappropriate to remark at this time that your Committee has given these subjects such consideration as the limited time at our disposal would permit.

Your Committee finds the subjects assigned are difficult and, in consequence are reporting on the same with a feeling that our recommendations are made with the thought in mind only for the best interests of the Medical Society of the State of New York.

1 Your Committee accepts the suggestion of the Board of Trustees recommending that the JOURNAL be published by the Medical Society of the State of New York, at such time as conditions will permit which will not be prior to January 1 1939

2 Your Committee recommends the principle that the Directory be published annually omitting 1938 and beginning in 1939

3 Your Committee recommends that the technical exhibits be under the direct business management of the publishing department of the JOURNAL.

4 We recommend that the President, with the approval of the Council, appoint and set up an appropriate Committee, to consider ways and means of carrying out the recommendations regarding the publication of the JOURNAL and Directory and the management of the technical exhibits

I move the adoption of the report of the Committee.

The motion was seconded.

DR. WILLIAM H. ROSS I move we take up the matter of the JOURNAL first.

SPEAKER KOPETZKY If there is no objection to that, it is so ordered.

The recommendation of the Reference Committee on the JOURNAL says "Your Committee accepts the suggestion of the Board of Trustees recommending that the JOURNAL be published by the Medical Society of the State of New York, at such time as conditions will permit, which will not be prior to January 1 1939

That recommendation is before you for consideration What is your pleasure?

The motion to adopt this recommendation was duly seconded, and after discussion, was put to a vote and carried.

DR. H. M. HICKS The next recommendation of the Committee is "Your Committee recommends the principle that the Directory be published annually omitting 1938 and beginning in 1939" I so move.

The motion to adopt this recommendation was duly seconded and after discussion, was put to a vote, and carried.

DR. H. M. HICKS Next, "Your Committee recommends that the technical exhibits be under the direct business management of the publishing department of the JOURNAL."

The motion to adopt this recommendation was seconded, and there being no discussion, it was put to a vote and carried

DR H M HICKS We recommend that the President, with the approval of the Council, appoint and set up an appropriate Committee, to consider ways and means of carrying out the recommendations regarding the publication of the JOURNAL and Directory and the management of the technical exhibits

The motion to adopt this recommendation was seconded, and there being no discussion, it was put to a vote and carried

SPEAKER KOPETZKY I presume that I can ask in the name of Dr Hicks for the adoption of the report as a whole

DR H M HICKS I so move

The motion was seconded, put to a vote, and carried

SPEAKER KOPETZKY It is so ordered, and the thanks of the House go to Dr Hicks

69 Malpractice Insurance

(Report with moving picture slides)

SPEAKER KOPETZKY Dr Chas Gordon Heyd has an important communication to make with reference to the Insurance Committee. The Reference Committee that I referred to has to do with publicity matters. Will you take these matters up now or postpone them until tomorrow morning after the election? Dr Heyd tells me that he will only take ten minutes to present his report

DR ROONEY I move we receive Dr Heyd's report now

DR HEYD Mr Speaker and Gentlemen, it is opportune from time to time that you should have a report on one phase of the business of your organization. Malpractice insurance is an annual business of about \$350,000. I will take about eight minutes to give you some very cheery news on this phase.

The State Society has been in the malpractice insurance business for seventeen years, and it has been, on the whole, I think a success

(Slide) I want you to look at this first picture because during the last two years is the first time in our experience that we have been able to arrive at the cost of our insurance. Out of every dollar we have 2½ per cent cost plus basis that goes to the carrier, 31.5 cents of every dollar goes into the expenses of running the insurance, salaries of the company, and so forth, leaving sixty-six cents of every insurance dollar for the payment of losses

(Slide) We started in the insurance business in 1921, with Mr Wanvig, and George Whiteside, later Lloyd Stryker, and then Mr Brosnan. Mr Wanvig has continued right through, and has acted as the agent of the Society and its official representative

(Slide) Throughout the years we have tried to maintain out of every dollar that sixty-six cents. It has varied as you see there. In 1921 it was sixty cents, and then sixty-two cents, up to sixty-six cents. Two years ago the former carrier wished to reduce the amount of money out of each dollar for losses to sixty-two cents, and raise the expense account to thirty-five cents. It was upon that issue that we parted company with the former carrier

(Slide) Under the new setup for the first time in our history we had triplicate vouchers prepared by Mr Brosnan, in which every item of the malpractice expense was allocated, so that we are prepared to break down our insurance cost and show you three essential savings, and return money to the members of the Society

(Slide) In the makeup of the cost of the insurance there are paid out losses, suits that go against us and those that are settled. I may say that the number of suits that are settled far exceed those that are determined in Court. There must be put aside for every case that is filed a prospective amount of money, which is represented for suits outstanding. When a suit is brought against a member, Mr Brosnan must allocate what in his judgment may be the top or maximum loss to the Society. Again, the third item, the lowest one, are suits that will arise, and under the Insurance Law a reserve has to be set aside for those. Let us break down those three items in our malpractice insurance

(Slide) Under the Aetna in the period from 1920 to 1934 in 1468 suits the amount of money that was put aside to take care of the losses was \$1,672,000. When those cases were all closed out and settled, it was found that the Aetna had overestimated the amount of losses that we would have to pay for \$644,511.76. That excess was always figured in the determination of our cost of insurance on the \$5,000-\$15,000 policy. Under the Yorkshire in two years the estimated amount was \$144,000, but believing that that was overestimated a deduction was made of \$53,000, so that to liquidate all of our claims would require \$91,000. Now to carry that through a little further

(Slide) We have to estimate the cases that will arise. Taking 1935, and extrapolating the possible suits we will have arise by 1940, we will get 394 suits for malpractice

(Slide) If we break that down we find that the profit will be 25, the expense 31.5, and the amount paid for losses sixty-six per cent, in other words we will pay out \$29,000, we will have outstanding \$91,000, and suits to arise \$166,000. Adding that profit to the sum total there, we obtain the total of \$436,000. Dividing that sum by 15,221 policies we derive a basic rate of \$28.67, and we pay \$1.33 more than that at the present rate

(Slide) Now, comparing it under the former carrier, with the profit remaining the same 25, with the expense of 31.5 in the Yorkshire and sixty-six per cent for losses, we obtain a total of \$436,000. Under the old rate with the Aetna, the carrying through of that \$568,000 of overestimated prospective losses, our bill with the Aetna in 1934 would have been \$516,905, and on the rate proposed by the Aetna when we switched from them would have been \$545,852

We have then in the last two years made a saving of the difference between \$436,000 and \$545,000

(Slide) The result of that, gentleman, has been that although we have an agreement with the Yorkshire not to change the rate under three years, the Yorkshire are prepared on the

first of January of this year to permit us to make the following reductions

Our experience shows that we no longer need to charge for assistants not regularly employed so that you will be protected on the occasional assistant without any addition to your premium. Saving number one!

The next saving we are able to report to you will be in the excess limits in other words when you buy a policy over the \$5,000-\$15,000 you pay an additional premium. It will be possible after the first of January to obtain an additional protection of nearly twenty five per cent for the same money that you now pay.

It is a great pleasure to report to you one of the agencies of the Society that shows you a saving after two years of operation. (Applause)

DR. ARTHUR J. BEDELL. I move you, sir we adjourn to reassemble at nine o'clock a.m.

The motion was seconded, put to a vote, and carried.

SPEAKER KOPETZKY. We stand adjourned until 9 o'clock a.m. tomorrow.

(The Executive Session adjourned at 12.30 o'clock a.m.)

Tuesday Morning Session

May 10 1938

The session convened at 9 45 o'clock.

SPEAKER KOPETZKY. The House will come to order.

The Chair wishes to make an announcement. I know everyone will be pleased to know that the Woman's Auxillary cordially invite all the members of the House of Delegates to attend a tea in Le Perroquet Suite on the fourth floor from four to six o'clock this afternoon.

DR. ARTHUR J. BEDELL, Albany. I move you, sir that the House officially accept the invitation.

The motion was seconded.

SPEAKER KOPETZKY. Your motion is out of order sir because the only business before the House, and the first business of the morning is the nominations and elections. I will receive your motion immediately the elections are over.

The Council will meet at three o'clock in the Pillemet Suite.

The Trustees will meet immediately after the Council meeting.

70 Elections

Roll Call

SPEAKER KOPETZKY. Will each delegation as it is called rise, and answer to their name?

The Assistant Secretary called the roll and the following Delegates responded.

Stanley E. Alderson, Frederic C. Conway, Edgar A. Vander Veer, Lyman C. Lewis, J. Lewis Amster, Harry Aranow, Edward R. Cuniffe, Moses L. Furman, Samuel Epstein, William Klein, Moses H. Krakow, Solomon Krell, Samuel M. Allerton, Clifton H. Berlinghof, Leo E. Reimann, Harry S. Bull, Edgar Bieber,

Charles E. Goodell, George R. Murphy, Wayland H. Mason Jr., Anton S. Schneider, John L. Edwards, Daniel R. Reilly, Robert Brittain, William A. Krieger, Aaron Sobel, Herbert H. Bauckus, Alfred H. Noehren, James H. Donnelly, John T. Donovan, Albert A. Gartner, Harry C. Guess, Thurber LeWyn, Joseph C. O'Gorman, Harold J. Harris, Raymond G. Perkins, Sylvester C. Clemans, Peter J. DiNatale, Kenneth F. Bott, James F. Gallo, Charles A. Prudhon, Charles A. Anderson, Albert F. R. Andresen, Robert F. Barber, John L. Bauer, Simon R. Blatteis, Thomas M. Brennan, E. Jefferson Browder, Irwin E. Sims, John B. D'Albora, Maurice J. Dattelbaum, Benjamin Davidson, Harry Feldman, Edwin A. Griffin, Walter D. Ludlum, Thomas A. McGoldrick, John J. Masterson, Harvey B. Matthews, Philip I. Nash, J. Sturdivant Read, Nunzio A. Rini, Irving J. Sands, Alec N. Thomson, Joseph Raphael, Edgar O. Boggs, Judson M. Burt, Richard B. Cuthbert Jr., Clarence V. Costello, William A. MacVay, John J. Rooney, Edward T. Wentworth, Warren Wooden, Horace M. Hicks, Louis H. Bauer, Louis A. Van Kleeck, Walter P. Anderson, George Bachr, Clarence G. Bandler, Emily D. Barringer, Conrad Berens, Edward C. Brenner, Samuel B. Burk, Edward M. Cole Jr., J. Homer Cudmore, Adolph G. DeSanctis, Charles E. Farr, Howard Fox, B. Wallace Hamilton, Benjamin Jablons, David J. Kaliski, J. Stanley Kenney, Moses Keschner, James A. Miller, William M. Patterson, Maximilian A. Ramirez, Nathan Ratnoff, Terry M. Townsend, Robert E. Walsh, Guy S. Philbrick, Richard H. Sherwood, William Hale, Jr., John F. Kelley, Andrew Sloan, John J. Buettner, William W. Street, Albert G. Swift, Homer J. Knickerbocker, M. Renfrew Bradner, James C. Donovan, Guy DeL. Forbet, Olin J. Mowry, Floyd J. Atwell, Henry W. Miller, James M. Dobbins, Henry C. Eichacker, Frank R. Mazola, H. P. Mencken, James R. Reuling Jr., Joseph Wrana, John D. Carroll, Stephen H. Curtis, Arthur S. Driscoll, Stanley C. Pettit, Stephen R. Monteith, W. Grant Cooper, Stanley W. Saver, George Scott Towne, Frank L. Sullivan, William C. Treder, David W. Beard, Christian W. Schmidt, W. Raymond Holmes, Leon M. Kysor, Herbert B. Smith, Coburn A. L. Campbell, John L. Sengstack, Irving Greenberg, William A. Moulton, Norman S. Moore, Frederic W. Holcomb, Morris Maslon, Denver M. Vickers, Ralph Sheldon, George C. Adie, James G. Morrissey, Merwin E. Marsland, Walter W. Mott, Laurence D. Redway, Henry S. Martin, Bernard S. Strait.

The following District Delegates were present: Theodore West, Irving Gray, Bertran W. Gifford, Carl R. Comstock, Murray M. Gardner, Leo P. Larkin, Alfred W. Armstrong, H. Wolcott Ingham.

The following Officers were present: Charles H. Goodrich, William A. Groat, Arthur S. Driscoll, Peter Irving, Edward C. Podvin, George W. Kosmak, Aaron Sobel, Samuel J. Kopetzky, James M. Flynn, Floyd S. Winslow, John I. Masterson, Guy S. Carpenter, Frederic E. Elliott, Edward T. Wentworth, Oliver W.

H Mitchell, Thomas H Cunningham, Thomas P Farmer, James H Borrell, Augustus J Hambrook, George W Cottis, William H Ross, James E Sadlier, Harry R. Trick, James F Rooney

The following Ex-Presidents were present Martin B Tinker, Grant C Madill, J Richard Kevin, James F Rooney, Orrin Sage Wightman, Nathan B Van Etten, George M Fisher, James E Sadlier, Harry R. Trick, William H Ross, William D Johnson, Chas Gordon Heyd, Arthur J Bedell, Frederic E Sondern, Floyd S Winslow, Frederick H Flaherty

Tellers

SPEAKER KOPETZKY There evidently being a quorum present, we will now proceed with the election The Speaker announces the following tellers

Dr Mitchell, Chairman of the Board of Tellers, Dr Adie of Westchester, Dr Bauckus of Erie, Dr Strait of Yates, and Drs Colie and Farr of New York

Election of Officers

The following Officers were elected
President-Elect and First Vice-President, TERRY M TOWNSEND, New York.
Second Vice-President, WALTER W MOTT, White Plains
Secretary, PETER IRVING, New York
Assistant Secretary EDWARD C PODVIN, Bronx
Treasurer GEORGE W KOSMAK, New York
Assistant Treasurer, KIRBY DWIGHT, New York
Speaker, JAMES M FLYNN, Rochester
Vice-Speaker, LOUIS H BAUER, Hempstead
Trustee, five-year term, GEORGE W COTTIS, Jamestown
Councillors, three-year term terminating 1941
 HARRY ARANOW, Bronx
 GUY S CARPENTER, Waverly
 CLARENCE G BANDLER, New York

A M A Delegates

The following were elected for 1939-1940

THOMAS P FARMER
 WILLIAM A Groat
 B WALLACE HAMILTON
 WILLIAM D JOHNSON
 FLOYD S WINSLOW
 EDWARD R. CUNNIFFE
 GRANT C MADILL
 FREDERIC C CONWAY
 JAMES H BORRELL
 THOMAS M BRENNAN

The following were elected Alternates for 1939-1940

FREDERICK H FLAHERTY
 GEORGE W KOSMAK
 JOHN J MASTERSON
 G SCOTT TOWNE
 JAMES R REULING, JR.
 LOUIS A VAN KLEECK
 JAMES M DOBBINS
 STEPHEN H CURTIS
 JOHN B D'ALBORA
 BERTRAN W GIFFORD

71 Report of Reference Committee on Council Report No IV

The House will come to order The Chair recognizes Dr Marsland who is reporting on Reference Committee No IV of the Council's Report in regard to Medical Publicity and Legislation

Medical Publicity

DR MERWIN E MARSLAND, *Westchester*

Your Committee has reviewed the report on Medical Publicity Topic No 8 of the Council report, as well as Section 1 of the Supplementary Report of the Council

Your Committee approves of the practice of issuing news releases covering District Branch meetings to the daily and weekly local press and concurs in the Council's recommendation that this project be continued

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

DR MARSLAND Your Committee also approves of the news released to the public on postgraduate courses and other releases covering special subjects

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

DR. MARSLAND The activity of the Director of the Bureau in attending committee meetings of this Society and of other organizations is noted with approval

The cooperative efforts of the Bureau with the New York State Department of Health are to be highly commended

The number and volume of the releases under the title of Speaker's Service Bulletins and of the Handbook Series raises the question in the minds of your committee as to whether the time, effort and money expended in this service is justified by the extent to which this material is used Your Committee recommends that the Council make a special review of this particular part of the Bureau's activities and take proper action as to its continuation or curtailment.

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

DR. MARSLAND The activity of the Bureau in recording and analyzing the tendencies of opinion and of propaganda as disclosed through the press and the radio, and the preparation of material to combat unsound proposals through similar media, is recognized as an important function, and your committee recommends its continuance

I move the adoption of this recommendation.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

DR. MARSLAND I now move the adoption of the report as a whole.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

Legislation

Your committee has reviewed the report of

the Council Committee on Legislation, Topic No. 9, as well as Section J of the Supplementary Report.

We note and approve continued cooperation with the local committees of the County Societies and with the Woman's Auxiliary as well as the efforts to enlist cooperation of other interested organizations.

The practice of the Committee of opposing undesirable legislation by conference with proper interested and influential officials would seem to have been highly successful.

Your committee is impressed by the volume of work which is required of the Council's Committee on Legislation and of the Executive Officer, Dr Lawrence and wishes to commend them for the very successful results of their activities during the past session of the Legislature. We feel that the practice of issuing bulletins and supplying copies of bills to County Society chairmen is a very useful and necessary function of the Committee.

We note the failure of the lien bill but also the progress which was made. Your Committee recommends that the Committee on Legislation continue its efforts to secure the passage of this bill.

I move the adoption of this recommendation.

The motion was seconded, and as there was no discussion, it was put to a vote and carried.

DR. MARSLAND Commenting on the failure to draft bills early enough to secure consideration by the Legislature, your Committee recommends that all proposed bills be prepared and ready at the opening of the legislative session whenever it is possible to do so.

I move the adoption of this recommendation.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried.

DR. MARSLAND We approve of the action of the Council in instructing its Committee on Legislation and the Executive Officer to maintain close observation of the proceedings of the Constitutional Convention in so far as relates to the practice of medicine.

I move the adoption of the report as a whole.

The motion was seconded and as there was no discussion, it was put to a vote, and carried.

Medical Expert Testimony

Your Committee has considered the recommendation of the Council that the House go on record as approving in principle classification of physicians by suitable means as experts in particular fields. Your committee approves of this recommendation and moves its adoption.

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried.

DR. MARSLAND That is all.

SPEAKER KOPETZKY You are thanked, sir

72. Report of Reference Committee on Council Report No VIII

Arrangements

DR. WALTER D. LUDLUM The report of the Committee on Arrangements contains no formal

recommendation. However it reports its difficulty in estimating expected attendance at various sessions and requests that the Secretaries of the different Sections and Sessions this year make a definite count and report it to the General Manager Dr Peter Irving for reference on future occasions.

We call this a recommendation, we approve it and recommend that this request be placed in the hands of the General Manager for administration at this or future Meetings.

We so move.

The motion was seconded and as there was no discussion it was put to a vote and was carried.

Scientific Work

DR. LUDLUM The Committee on Scientific Work offers no recommendations.

Scientific Exhibits

The Committee on Scientific Exhibits offers the following recommendations

"1 That relatively more space be allotted to Scientific Exhibits in order to accommodate the increasing demand for these facilities."

Appreciating the value of these exhibits and that their usefulness depends largely on adequate space for display we approve recommendation 1 and recommend its adoption.

I so move.

The motion was seconded and as there was no discussion it was put to a vote and carried.

DR. LUDLUM 2 That space allotted to Scientific Exhibits be divided into pre-determined units of stated size, and that these units be sold by number to the respective exhibitors for a nominal sum in accordance with a pre-determined scale of charges. This would automatically eliminate any undesirable features of the present system."

After conference with the Chairman of the Committee we believe that requiring a small fee of exhibitors imposes added responsibility and will to a considerable degree, eliminate irresponsible would be exhibitors. We approve recommendation 2 and recommend its adoption.

I so move.

The motion was seconded, and as there was no discussion it was put to a vote, and carried.

DR. LUDLUM The Committee on Scientific Exhibits has considered other details leading to improvement in the character and arrangement of exhibits, the discussion of which would be protracted and not appropriate to this meeting. Therefore, we recommend that the present Chairman of that Committee be requested to meet with the General Manager for conference and advice which could be further conveyed to the Council or House of Delegates.

I so move

The motion was seconded, and as there was no discussion it was put to a vote and was carried.

DR. LUDLUM We have examined the programs and arrangements made by these Committees and find them excellent. As we cannot at this time report on the success of the meeting by reason of their activities we conceive it

to be our duty to observe the procedure of this Assembly and if we should see or hear of ways in which future Committees could make improvements to offer a further report to the House of Delegates or the Council

In moving to accept the reports of these Committees, your reference committee would request the addition of a vote of thanks for their active and efficient service

We move the adoption of this report.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

Section on Gastroenterology

DR. LUDLUM The recommendation by the chairman of the Committee on Scientific Work for the establishment of a Section on Gastroenterology, a copy of which with the arguments therefor is appended hereto, and which I shall read, if desired, has been carefully considered by your Reference Committee and approved. However, we consider that such a section should discuss conditions also of the lower digestive tract, and so would include Proctology. We recommend that proper steps be taken for the formation of a Section on Gastroenterology and Proctology

I so move.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

SPEAKER KOPETZKY The House of Delegates has established another Section

You are thanked, Dr Ludlum, for your services

73 Report of Reference Committee on Report of Council

DR. CLARENCE V COSTELLO, *Monroe* The Reference Committee on the Report of the Legal Counsel has carefully read and examined the complete and comprehensive report submitted by Mr Lorenz J Brosnan.

Your Committee feels that our Society is very fortunate in having Mr Brosnan and his associates for its legal staff. The report submitted, as in previous years, shows the Counsel's efforts divided into three major activities

I Litigation—Court actions, etc., with two comparative tables

II Counsel work with officers and committees—the publication of articles, case reports, etc.

III Legislative advice, opinions, etc.

The report of these activities is very clearly presented and the volume and importance of the counsel's work easily recognized

Your Committee moves the report of the Legal Counsel be approved and adopted

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

74 Report of Reference Committee on Supplementary Report of Council on Malpractice Insurance

DR COSTELLO Your Reference Committee has read and studied the report submitted by the Insurance Representative and unanimously agrees that it is commendable.

The Committee feels, however, that during the next two years the experience will be sufficiently favorable to obtain further reduction in the premium rate on the same basis of insurance.

The Reference Committee wishes to emphasize the recommendations of the Council in approving the following suggestions of the general insurance agent

1 Continuation of study of excess limit costs and profit, with authority to agree upon behalf of the Society with the company upon such reduction of those costs as may be justified

2 That the Master Policy of the State Society be revised to include liability on account of the acts of permanent medical assistants or x-ray and pathological technicians without extra charge, provided that if the assistant be a doctor of medicine, he shall be a member of the State Society and individually insured under the Group Plan of the Society

3 That a rate of \$28 for minimum \$5,000—\$15,000 policy be adopted

Your Committee approves and recommends the adoption by the Council of the report

I so move.

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried

75 Report of Reference Committee on the Reports of Treasurer and Trustees on Two Deferred Items—Merging Publicity and Publication Departments and Raising State Assessment

Section 31

DR. LOUIS H BAUER, *Nassau* There are two unfinished items on the Reference Committee's Report on the Treasurer and Trustees, which were deferred pending the action of other committees yesterday

The first is a recommendation by the Trustees "That the Publicity and Publication departments be merged. This refers to a combination of the present Public Relations Bureau with the JOURNAL Publication Department, the latter recommended by the Trustees. No decision can or should be made on this until a definite decision has been reached about the JOURNAL. In any event, the Committee deems it unwise to consider any consolidation until after a Publication Department has been established, provided such a step is taken. If the Society decides to establish its own Publication Department, then your Committee believes that the Public Relations Bureau should be merged with the Publication Department as the two Departments could be run more economically as one and without impairment of the efficiency of either"

The House last night decided to establish a Publication Department, therefore, your Committee recommends that this Publication Department be merged with the present Public Relations Bureau, and I so move.

The motion was seconded

SPEAKER KOPETZKY You have heard the motion merging the Publication Department

with the Public Relations Bureau in the interest of economy and efficiency. Is there any action?

The motion was put to a vote and carried.

DR. BAUER The second point, Mr. Speaker was on the matter of dues. "The Committee, therefore feels that it would not be advisable to raise the dues at this time," and last night the House voted to table indefinitely a motion to raise the dues. Therefore, action on this is unnecessary so instead I will make a substitute and it will be to the effect that the assessment for this year be the same as in the past year I so move.

SPEAKER KOPETZKY That is a perfectly proper substitute. We have to fix the assessment under the Constitution. The substitute is that the assessment this year be the same as heretofore.

The motion was seconded and as there was no discussion it was put to a vote, and carried.

DR. BAUER I now move the adoption of the report as a whole, as amended.

The motion was seconded and as there was no discussion, it was put to a vote, and was carried.

SPEAKER KOPETZKY You are thanked, Dr. Bauer

76 Report of Reference Committee on Council Report No. II

DR. JOSEPH C. O'GORMAN *Erie* Your Reference Committee No. II on the Report of the Council has considered the assigned Topics Nos. 2, 4, 5 and 6, dealing with tuberculosis case finding preventive medicine maternal welfare, medical education, and E—the supplementary report on the Detroit Plan of Tuberculosis Case Finding

Your Committee approves the substance of these reports. Said reports are essentially preventive medicine and this objective is best attained when public agencies utilize the services and facilities of a private physician. We urge the Committee on Medical Education to continue and enlarge its activities.

The Addendum A referred to in E does not fall properly within the scope of preventive medicine. It does, we feel concern the economics of medicine and it is the sense of this Committee that because of this fact this portion of the Addendum in E should be referred for consideration to the Reference Committee on Medical Economics.

SPEAKER KOPETZKY Mr. Chairman, it is within the province of the Speaker to make the reference. We cordially appreciate the advice of a Reference Committee as to where the Speaker shall make the references. We referred it to you, and we would like a decision from you.

DR. O'GORMAN The report was the minority report of two members of the Joint Committee of the Department of Health and Medical Society. Evidently there was some controversy about it, and it concerns medical care as

administered in New York State by the T.E. RA. This report is signed by Dr. Elliott and Dr. Davis. It gives the figures a compilation of how much money has been spent for medical care in the home in the State however even in the Committee controversy arose as to medical care in New York State in the home, and it was found in many cases medical care in the home was not provided by the state or the local community to the private physician. The rest of this report, as to the tuberculosis case findings and all that has been reiterated here so much yesterday that cooperation between the Society with public agencies and state departments is necessary—or at least to us it was a repetition—and the main facts in the case seemed to us essentially to concern preventive medicine. It was our thought that preventive medicine is best attained according to the substance of these reports—and we agree with them—when the private physician's offices are utilized by the public agencies throughout the state, that is, routing preventive medicine, tuberculosis case finding suspects, or anything else for medical care, through the private offices. These are very voluminous reports and that is the sense of the Committee. We believe, as I stated before, that this is not preventive medicine, it is medical care and we feel that it does not properly come under our province, so we therefore suggest that it be referred to Committee No. VI for consideration.

I move the adoption of the report on 2, 4 and 6

The motion was seconded.

SPEAKER KOPETZKY The motion has been made that 2, 4 and 6 be adopted. Is there any discussion?

The question was called for and the motion was put to a vote, and was carried.

DR. O'GORMAN Now as to Addendum "A" of "E" Report, which deals with Medical Care in New York State and is signed by two members of this Joint Committee, we suggest that this Addendum "A" be referred to Committee No. VI which is the Reference Committee concerned with Medical Care.

SPEAKER KOPETZKY I am sorry to declare the recommendation out of order. It is the Speaker's province to refer resolutions and reports under the Constitution and By Laws to various Reference Committees within his judgment. It is no function of a Reference Committee to recommend that it be sent anywhere else. On the other hand had the Speaker been told yesterday that this Committee preferred not to consider this matter he would then have in time taken it away from that Committee, with the consent of the House, and referred it to another Committee. As the hour of adjournment is almost upon us I can hardly accept the recommendation at this time to send this matter to another Committee for consideration for when should they report? These House Committees die when the House dies, which it will do in a very short time. Therefore, this matter is now on the floor of the House for such disposition as the delegates will make of it. What is your pleasure?

DR O'GORMAN Yesterday, I appeared before Committee No VI, and I spoke to Dr Kopetzky in regard to this Addendum "A" In the rush of business I presume that he has forgotten about it.

SPEAKER KOPETZKY That is possible

DR FRANK L SULLIVAN As a member of this Reference Committee I do not think it was the sense of the Committee at its meeting yesterday that this should be referred to Committee No VI

SPEAKER KOPETZKY Are you telling the House that the Chairman of the Committee is not reporting for the Reference Committee?

DR FRANK L SULLIVAN He is reporting for the Committee all right.

DR O'GORMAN Mr Speaker, Dr Sullivan is quite correct It is to be referred to the Reference Committee on Medical Economics, and I so read it. However, there is no Reference Committee on Medical Economics, so I was told that Reference Committee No VI was the place to send it, so that Reference Committee No VI and Reference Committee on Medical Economics are one and the same thing

DR SULLIVAN That explains it.

DR JAMES F ROONEY I move you, sir, that this report be referred to the Council for such study as they choose to make and report to the next House of Delegates thereon

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

77 Introduction of President-Elect of American Medical Association

SPEAKER KOPETZKY I would ask Dr Rooney and Dr Madill to escort the President-Elect of the American Medical Association, Dr Irvin Abell, to the rostrum

The audience arose and applauded as Dr Abell was escorted to the platform

SPEAKER KOPETZKY Gentlemen, I present the President-Elect of the American Medical Association to you We are indeed glad to recognize you on this floor to say to us a word in greeting

DR IRVIN ABELL Mr Speaker and Members of the House of Delegates, I am indeed very grateful to you for the courtesy you have afforded me of expressing to you my greetings this morning, and to say to you I know how hard you have worked

I just got into New York and have looked over the morning newspapers, and have read the account of your deliberations yesterday If it is an index of the hard work which you have put in on the subject of socialization, I am sure that you had indeed a very trying time

Unfortunately, the same thing cannot be said for the social trends that can be said for the scientific trends of our profession These latter may be viewed with optimism While the outcome and the future direction of social trends must necessarily depend upon the unfolding of events in our changing social order, certainly

when we all give to them our sincere consideration and our best thoughts, we will have the opportunity, I hope, of presenting to the country after our coming meeting in San Francisco something that is definitely constructive and something that can be accepted both by the profession and the people of this country as offering a solution to what at present are most perplexing problems

I thank you! (Applause)

SPEAKER KOPETZKY While we are in this happy mood, may I extend greetings to Dr Bayne-Jones and Dr Chester Brown, the delegates to this convention from the State of Connecticut (Applause)

The delegates from Connecticut do not wish to do more than state they are glad to be here.

Is the delegate from Vermont and the delegates from New Jersey here?

There was no response.

78 Optometry Legislation

Section 84

DR N A RINI, *Kings* I have a short resolution I would like to present before the work of the Reference Committees is completed

WHEREAS, the Feld-Piper Optometry Bill, Assembly Introductory No 1744 and Senate Introductory No 1398 succeeded in passing both houses of the Legislature of this State during the 1938 session before the Ophthalmologists of the State were aware of its full intent, and

WHEREAS, the Bill provided that Optometrists might diagnose and treat "any optical or ocular condition, deficiency or deformity, visual or muscular anomaly of the human eye" by any means or methods, other than by the use of drugs, and

WHEREAS, the passage of this bill would have permitted unqualified persons to undertake the treatment of many ocular conditions with results disastrous alike to the patient and to the State, therefore be it

Resolved, that on all legislative proposals affecting any special branch of medical practice, the Legislative Committee of the State Society secure the opinion of at least three members practicing the specialty affected and, if time permits, that no stand on such legislative proposal be taken by such Legislative Committee of the State Society until such conference has taken place.

SPEAKER KOPETZKY That is referred to Reference Committee on New Business C

79 Legislation for Health Care

DR BENJAMIN DAVIDSON, *Kings* This is not a county matter, it is my own resolution

WHEREAS, there has been introduced in the last session of the New York State Assembly at Albany a bill known as Bill Introductory 2143, Nos 2509, 2830, by Assemblyman Harry Gittelson, said bill being entitled "An act to

amend the Public Health Law providing for a statewide system or plan for public medicine and a long range health program for the people of the state', and

WHEREAS this bill aims at (1) the reorganization, co-ordination, and collaboration of all health functions, activities and public and private agencies in the state, (2) making medical and other health care available to all the people of the state, including sanitary and preventive medicine, (3) reorganizing the healing professions on a public service salaried basis and (4) aims to secure the full advantages of modern medicine and service for all and to secure the full utilization of all skilled personnel and resources for health care in the best interests of the people and professional personnel of the state, and

WHEREAS the Bill provides specifically the following

(a) Creates in the Health Department, in addition to existing divisions and functions and those transferred from other departments a division of medical care, a division of dental care, a division of nursing care, a division of pharmacy—each division to be headed by an appropriate expert known as Director

(b) Provides free medical examination, diagnosis, treatment, care, hospitalization, rehabilitation, transportation to all residents of the State in need thereof including preventive medicine and free voluntary physical and mental health examinations, and free drugs, medicines, supplies, appliances, etc.

(c) Provides for appointments, promotions, discharges, retirements, pensions, sick leave, vacations, and further professional study and qualifications

(d) Provides that all registered professionals are automatically eligible and to be appointed, as they elect to serve, and provides for civil service rules, tenure, rights and privileges and

(e) Provides schedules of salaries for professional personnel, and during reorganization and establishment of new divisions for allocating ranks and salary grades taking into consideration qualifications, technical experience, and number of years in practice of the profession.

Therefore Be it Resolved that this House of Delegates of the New York State Medical Society approve and endorse the principles and proposals embodied in the aforementioned Bill and that the officers and subdivisions of this Society be hereby instructed to make all efforts possible in securing the passage by the Legislature of New York State of the legislation proposed in the said Bill.

There is an abstract of the bill attached to this which I am not going to read to you.

Dr. JAMES F. ROONEY In view of the lateness of the period of the session, and also in view of the fact that this resolution embodies certain instructions to the Council and to the Legislative Committee I move that it be referred to the Council with power

The motion was seconded and as there was no discussion, it was put to a vote, and was unanimously carried.

80 Report of Reference Committee on New Business A on Revision of Principles of Professional Conduct

Section 67

Dr. L. R. CUNNINGHAM, Bronx Resolved that inasmuch as the Principles of Professional Conduct of the Medical Society of the State of New York, under date of 1935 are in a general way valuable suggestions but not binding as to the professional conduct of physicians and

"WHEREAS the present need of both the profession and the public demands a more definite outline of what constitutes ethics

Therefore Be it Resolved that a Committee of five be appointed to simplify, revise and codify these ethical principles so that they may be binding and more than a guide to the medical profession."

Your Committee realizes that the Principles of Professional Conduct of the Medical Society of the State of New York are binding on all members but have no force with those outside the organization. However the introducer of the resolution [Dr. Orrin S. Wightman] wished to have the principles of ethics clarified, codified and simplified in order to make the work of the Grievance Committee of the State of New York more effective. We do not feel that this result can be achieved without a change in the Medical Practice Act, and any attempt to change this law at the present time would be unwise. However your Committee feels that there is merit in the request for a study of Principles of Professional Conduct of the New York State Medical Society and recommends that a committee of five be appointed to study and revise the Principles of Professional Conduct, with the hope that they may be simplified and codified in order that they will be more effective.

I move the adoption of this recommendation. The motion was seconded, and as there was no discussion, was put to a vote and carried.

81 Invitation to Buffalo for 1939 Annual Meeting

Section 28

Dr. CUNNINGHAM Reporting on resolution submitted by Medical Society of the County of Erie regarding the next meeting of the State Society

"WHEREAS the Medical Society of the State of New York has held the annual meeting but once in Buffalo since 1915 and

"WHEREAS the Medical Society of the County of Erie would consider it an honor and pleasure to act as your host and

"WHEREAS except for the Metropolitan Area, Buffalo being the second largest city in New York State, has more than ample hotel and hospital facilities

"Be it Resolved that the Council of the Medical Society of the State of New York be memorialized to hold the 1939 annual meeting of the Society in Buffalo, New York."

The Committee notes with a great deal of pleasure this invitation from the Erie County

Society, and refers this resolution to the Council for consideration

I move you the adoption of this report.

The motion was seconded, and as there was no discussion, was put to a vote, and carried.

82 Report of Reference Committee on New Business A on Administrative Cost of Relief and Medical Care of the Poor

Section 27

DR CUNNIFFE Reporting on resolution submitted by Medical Society of the County of Orange

"WHEREAS, the amount of medical care required by persons under the responsibility of various public agencies is steadily increasing, and,

"WHEREAS, it has been the experience of this Society working in cooperation with the County Government, that these matters can be handled simply and economically through Town and County accounting, but that State regulations have developed an increasingly complicated mechanism of supervision and control, reduplicated in Town, County and State Departments, and that,

"This great activity in accounting obviously indicates a vast expense to the public in buildings, personnel, and maintenance, and that,

"These departments anticipate in only a small degree the greater complication and expense of similar Federal Bureaus at present under consideration, and that,

"Available data would indicate that administrative cost of these departments already exceeds the actual cost of medical services rendered, therefore

"*Be it Resolved* by the Orange County Medical Society that

"A letter be written to the Board of Supervisors of the County citing the above noted conditions and requesting its interest in an investigation of the administrative cost of relief and medical care of the poor, and;

"*Be it Further Resolved*, that this matter be presented to the State Medical Society through its House of Delegates requesting that further information be obtained from the State Department of Social Welfare pertaining to the administrative statistical and accounting expenses involved in its medical and relief activities for the Fiscal year of 1936 and 1937"

The resolution is referred to the Council, and we recommend the adoption of this section of the report.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

DR. CUNNIFFE I move you, sir, the acceptance of the report as a whole.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried

SPEAKER KOPETZKY The Committee is discharged, with thanks

83 Notice of Amendments to Constitution and By-Laws

Is there any other business unfinished before a Reference Committee? Are there any resolutions or motions to be made?

DR. JAMES F ROONEY I desire to give notice that I propose to submit an amendment to Article IV of the Constitution and Chapter IV of the By-Laws, and to make such other changes in other articles and sections as to bring the whole Constitution and By-Laws into conformity In view of the fact that this will require quite an extended survey of the inter-relationship of all of the provisions that will be proposed in these amendments, I desire to give this verbal notice, and to state that after consultation with the Counsel of the Society I shall submit the written proposals in time to meet the requirements of the Constitution and By-Laws concerning the publication of proposed amendments thereto

SPEAKER KOPETZKY The Chair receives officially notice of an amendment, the verbiage of which will be drawn up ad interim during the year, and which will have to be published once and will be considered before the next House of Delegates The record contains that statement It is all that is necessary to make it legal

84 Report of Reference Committee on New Business C on Optometry Legislation

Section 78

DR. HARRY ARANOW, Bronx On Reference Committee on New Business C, I took the liberty of reporting on the resolution submitted this morning by Dr Rini of Kings, reading as follows

"WHEREAS, the Feld-Piper Optometry Bill, Assembly Introductory No 1744 and Senate Introductory No 1398 succeeded in passing both houses of Legislature of this State during the 1938 session before the Ophthalmologists of the State were aware of its full intent, and

"WHEREAS, the Bill provided that Optometrists might diagnose and treat 'any optical or ocular condition, deficiency or deformity, visual or muscular anomaly of the human eye' by any means or methods, other than by the use of drugs, and

"WHEREAS, the passage of this Bill would have permitted unqualified persons to undertake the treatment of many ocular conditions with results disastrous alike to the patient and to the State,

"*Therefore, Be it Resolved*, that on all legislative proposals affecting any special branch of medical practice, the Legislative Committee of the State Society secure the opinion of at least three members practicing the specialty affected and, if time permits, that no stand on such legislative proposal be taken by such Legislative Committee of the State Society until such conference has taken place."

Our Chairman is away and as I happen to

know a little about this legislation I thought that was wise. I do not know whether anyone wants me to go into the details as to the history of the bill referred to but I have a substitute motion to submit on behalf of the Committee. We approve of the spirit of this resolution, but we feel it would be much better if the specialness would appoint a group of men to whom the bulletin should be sent, and they could give their opinion on any pending legislation appearing therein immediately. It would involve a great deal of difficulty and perhaps hard feeling if the Legislative Committee took it upon itself to pick men from all over the state to speak for any particular specialty, whereas the specialist organizations could readily appoint a group of men to whom the bulletin should be sent. Therefore, our substitute is "That the specialties be requested, if they desire to be particularly informed to appoint one or more of their members to be placed on the bulletin list of the Legislative Committee and that they keep the Legislative Committee advised as to the opinions of their organizations."

I move the substitute resolution.
The motion was seconded and as there was no discussion, it was put to a vote, and carried.

85 Vote of Appreciation of Services of Speaker Kopetzky

DR. EDWARD M. COLIE, JR., *New York* Was there any remark, motion, or minute made relative to the retiring Speaker during the absence of the tellers?

SPEAKER KOPETZKY I am not aware of it.

DR. COLIE I move that by a rising vote the members of this House express to Dr. Samuel J. Kopetzky their appreciation for his faithful service to the Medical Society of the State of New York.

VICE SPEAKER FLYNN I second that motion.

DR. JAMES F. ROONEY, *Albany* This is to me a trying moment. I had a very uncomfortable thing to do this morning because the Speaker who is now leaving us and myself have been friends and friendly enemies for over twenty years. I do not think that there is any man who deserves a vote of appreciation by this House for the services that he has rendered in the past more than this man does and I would like to move that this House extend its respects and its gratitude, and its best wishes to him by a rising vote of thanks for the many services he has performed to this Society and I so move.

DR. COLIE If I can't make the motion, I would at least like to second it.

The Delegates arose and applauded.

SPEAKER KOPETZKY Gentlemen of the House, I appreciate your vote. I leave this office after having held it for a number of years with the boast that not a man in this House have I ever gaveled down, and with the feeling that I have given every side a square deal, and of that—and that alone—am I proud. I thank you for your cooperation. There is

rarely a speaker who has had the cordial cooperation of the floor as I have had it. (Applause)

86 Election of Retired Members

We have one more piece of business to do. The Secretary will read the names of those who have applied for retirement and are legally entitled to it.

SECRETARY IRVING Retired membership applications, 1938

Sedgwick E. Austin	Anburn
Nejib Harbour	Brooklyn
Frederick M. Bauer	Whitesboro
Charles M. Bellows	New York
Ina V. Burt	Phelps
Albert J. Colton	Buffalo
Edward E. Cornwall	Brooklyn
Henry H. Forbes	New York
Edgar A. Forsyth	Buffalo
Wallace J. French	Pike
Hermann G. Germer	Canastota
Robert Goldberg	Bronx
Philip S. Goodwin	Perry
Leonard A. Graves	Elmhurst
Thomas H. Halsted	Syracuse
Graeme M. Hammond	New York
Louis Heitzmann	New York
Jacob E. Helwig	North Tonawanda
William S. Hubbard	Brooklyn
Simon M. Jacobs	Bronx
Leon T. LeWald	Carmel
Robert Lewis	New York
William Lipchitz	Bronx
I. William Lippman	Bronx
Frederick M. Luther	Allenhurst, N. J.
Albert S. Maddox	New York
George B. McAuliffe	New York
Isidor Mogil	Bronx
Edward S. Newell	Pelham Manor
Matthews Nicoll, Jr.	Rye
Abbott S. Payn	New York
J. Wilson Poucher	Poughkeepsie
William J. Pulley	New York
Henry F. Quackenbos	Pine Plains
Z. I. Sabahin	Bronx
Alfred V. Salomon	New York
Josef Saxl	New York
Frederic J. Shoop	Brooklyn
George W. Simrell	Brooklyn
Richard Slee	White Plains
Henry S. Stearns	New York
William G. Steidman	Rochester
Isidore Steinman	Bronx
Thomas Stone	New York
John H. Storer	New York
Alfred S. Taylor	New York
Jacob Washon	Bronx
Edward H. Wells	New York
Augustin A. Wolfe	New York
Thomas D. Wood	New York

DR. LOUIS H. BAUER, *Nassau* I move that these men whose names have just been read be given retired membership.

The motion was seconded, and as there was no discussion, it was put to a vote, and carried.

SPEAKER KOPETZKY There being no further business, all Reference Committees having reported all resolutions having been acted upon, having transacted all our business the Reference Committees are discharged with sincere thanks and the House of Delegates stands adjourned sine die.

SAMUEL J. KOPETZKY *Speaker*
PETER IRVING *Secretary*

(See next page for Index of Minutes of House of Delegates)

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THE NEW NURSE PRACTICE ACT

A Close-up and Its workings

What the New Law will mean to the Physician, the Hospital Administrator, and the Nurse

EMILY J. HICKS, R N

Executive Secretary, New York State Nurses Association

The recent swollen inflation of the daily influx of mail to a certain official desk in Albany is due to a new law that went into effect July 1. If you are a New York physician and the private duty nurse on whom you rely most has told you that she may not be able to practice under the new law, you may have a letter in that mail, asking "what's what"—with or without irritation.

If you are a New York hospital administrator with problems of staff affected by the new law, you too may be represented in that mail. And if you are a New York nurse practicing or hoping to practice in this state, more than likely you have an inquiry already on that desk.

For the new law is the Nurse Practice Act, replacing the old act of 1920 which as we all know required little or nothing beyond a license by examination of the nurse for an R N rating, and prohibited the use without license, of any of the four protected titles (registered, trained, graduate, and certified).

Since you have already guessed it, the official desk upon which the mail is being poured out in an unwieldy mass is that of Miss Stella Hawkins, R N, Secretary of the New York State Board of Nurse Examiners of the Department of Education, Albany. For hers is the multitudinous task of administering the new law under the Board of Regents, checking, and referring applications for license to the Board of Nurse Examiners which recommends to the Department of Education that licenses be granted.

So many of us have been overtaken by the new law before we were familiar with all its implications that your editor has asked me to put the spotlight upon the new act, applying the old newspaper rule of thumb—the "how and when and where and who and why." In short, if you run a hospital, if you are a physician, if you are a

nurse, if you run a school of nursing, what will be required of you?

Before we take up the law and how it will go into effect, let us stop to realize what a "wide open town" New York State was from the nursing point of view for lo, these many years (from 1920 to July 1 of this year). For it was the uncontrolled and chaotic unlicensed nursing for hire under the old Act and the evils in its wake that resulted in a state wide survey of nurse practice, undertaken by Dr Harlan Horner. It was the health hazards exposed by Dr Horner and his assistants in "Nursing Education and Practice in New York with Suggested Remedial Measures" published in 1934, which in turn gave rise to the drafting of a proposed new law to wipe out all unlicensed nursing for hire in this State. It is this bill known as the Todd-Feld Bill which Governor Lehman signed last April, which now has replaced the old Nurse Practice Act of 1920.

Any one of us in the medical, hospital or nursing field have been familiar with the self-styled "nurses," who were discovered even in hospitals, ignorant and often unscrupulous in their claims as well as the lack of law to curb or prohibit their practice when uncovered. For this "wide open" field applied to all phases of nursing for hire, the employment of nurses, the commercial training of so-called nurses, and the opportunities for employment afforded to nurses from other countries as well as other states. For example, if a hospital preferred Canadian nurses or those of any other nationality, citizenship was not required of them as aliens any more than residence established in the state was required of nurses from other states free to come here to practice without a license.

Schools of nursing in this State not accredited by the State could never-the-less continue to flourish, accept pupils, and to leave the realization to the students that

their diploma had no value for a license, subject to chance and heartbreak.

Moreover nursing schools of a commercial nature could advertise to attract new pupils with nothing to fear from the law. The old act by having no provision to curb them could offer no protection to prospective students.

If then the hospitals could employ whom they pleased, engaging nurses from other countries or taking those already here with out citizenship if commercial schools could continue to train and graduate pupils with no hope of securing a license to practice, the picture was dark enough to justify a new law with its sane and vigorous objective of cleaning house on a sweeping state wide basis.

So much for the background of the new Act and the reform it attempts to accomplish. Briefly its provisions are: To require a license of all those who nurse for hire and to penalize those who nurse for hire without a license.

Another sweeping change is the division into two groups of all who nurse for hire. As specified in the law, one group is the R.N., denoting the registered professional nurse. The other is the subsidiary group or practical nurse recognized by the State for the first time. Her license is new and limits her to simple nursing procedures.

After July 1 1940, unless she holds a license obtained during the two year waiver period, she must take a practical training course of not less than nine months in length.

Let us pause here to look at the requirement of the new law as it will affect other aspects of the nursing field. In the training field alone, the new law will wield a definitely new influence. Before its enactment, schools which were recognized by the State as preparing their graduates for the examination for the R.N. license were accredited by the State. Thus their graduates were eligible to try the licensing examination. All other training schools were non accredited and their graduates ineligible for examination for the R.N. license.

Under the old act these non-accredited schools as already pointed out, could flourish non accredited to be sure but free to decide whether prospective students were apprised that the course offered was below minimum requirements for registration and would give the graduates no status.

This confusion will no longer be possible under the new law which requires every school offering a course in nursing for either registered nurses or the training of practical nurses to be approved by the State Department of Education. Such courses must offer class work and clinical experience, under qualified instructors and proper supervision so that the pupils receive at least the minimum preparation considered safe to care for the sick.

For the good and sufficient reason that the State under the previous act had no concern with the field of practical nursing education there are as yet no practical training courses endorsed by the State. The plans for these courses as provided for by the new law are still in an elementary stage and will be announced later.

As for the small hospital maintaining a training school despite a small bed capacity, inadequate clinical or laboratory facilities, the probable trend among them will be to fall in line with the changes already under way in several small hospitals of under fifty bed capacity irrespective of the new law. Rather than face additional expense in the expansion of their curriculum equipment and bed capacity to measure up with the State's requirements of preparation for R.N. licenses and on the other hand to avoid the possible classification as a practical preparation for the practical licenses only it is not unlikely that some small hospitals may discontinue their schools. Student staff members will be replaced by more graduate nurses for floor and general staff duty.

Small hospitals in the State, in which this plan is followed report that graduates remain on the staff for eight to ten years. Of course the secret of this small turnover is traced to pleasant working relationships, reasonable hours, recognition of ability, vacations adequate salaries and if the nurses live in the nurses home, pleasant living conditions.

No mention of the influence of the new law in the hospital and training field would be complete unless the question of licenses for orderlies is included. This was answered at the last meeting of the Hospital Association of New York State held in Buffalo May 1938, when Mrs Ethel G Prince President of the New York State Nurses Association pointed out that the new law required every orderly performing nursing

the Buffalo meeting, "anyone coming from a school outside this State, having a course equivalent to the requirements of this State and meeting certain other requirements, will be permitted to try our examination. This, as you know, was not hithertofore possible."

It was this blocking clause of the old Act that caused so much bitterness among the graduate nurses from other states who previously were unable to gain admittance to the examination for R N licenses.

Many of these graduate nurses now have a chance to secure an R N license in New York State for the first time, although they held a license from another state. Referring to others in the out-of-state group who have no license from their home state, Miss Stella Hawkins (again before the Buffalo meeting) said "These are the nurses who have been here six months or more, graduated from registered schools, yet neglected to try an examination back home and do not hold a license in any state. We are telling them they may either take our State Board examination or go back to their home state and take their examination, whichever they prefer."

After July 1, 1940 definite educational requirements for both the R N and the practical license must be met. For the former, graduation from high school is stipulated, for the latter, completion of the first eight grades of elementary school is named, or in the latter, the equivalent. Other general requirements written into the law aside from those of residence, education and citizenship already mentioned, are an age of more than twenty years and graduation from a school of nursing registered by the department.

Prior to July 1, 1940, the practical nurse has a chance at a practical license without an examination—i.e., if she meets the other requirements and has two affidavits from two members of a County Medical Society. These must state that she has successfully performed the duties of a nurse for a period of not less than five years in the ten years immediately prior to July 1, 1938. However, action is dependent upon the recommendation of the State Board of Nurse Examiners.

In all other cases the practical nurse must pass a simple examination. After July 1, 1940, she will have no choice other than to complete a training course of not less than nine months approved by the State. She will then be eligible to try the licensing examination for practical nurses.

Will the 42,000 unlicensed persons who were revealed by Dr. Harlan Horner's report to the Board of Regents, as now nursing for hire in the State, qualify for licenses, leave the State, or discontinue nursing? It is a large order and one which puts an arduous task upon the Department of Education and its Board of Nurse Examiners. Many of this group will qualify either as registered professional nurses or as practical nurses. Certain it is that now the law has teeth, cases of crime, serious neglect of duty or illegal claims to license based on falsified records, and other violations can now be dealt with by the heavy hand of the law.

For information, Miss Stella Hawkins, Secretary, New York State Board of Nurse Examiners, Albany, is the official source. The New York State Nurses Association, which drafted and sponsored the bill, can be reached at 152 Washington Ave., Albany.

GRADUATE FORTNIGHT AT THE ACADEMY OF MEDICINE

The Eleventh Annual Graduate Fortnight of the New York Academy of Medicine will be held from October 24 to November 4. The subject of this year's fortnight is Diseases of the Blood and Blood-Forming Organs.

Twenty-three hospitals have accepted the invitation to participate by having prepared afternoon clinics and clinical demonstrations which will be coordinated with the evening meetings. The evening sessions at the Academy will be addressed by recog-

nized authorities in their special fields, drawn from leading medical centers of the United States. A comprehensive exhibit of books, pathological and research material, diagnosis, treatment and prevention whenever possible, clinical and laboratory diagnostic methods, x-rays, action of drugs and other therapeutic measures. Demonstrations will be held at regular intervals. A complete program and registration blank may be secured by addressing Dr. Mahlon Ashford, 2 E 103 Street, New York City.

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DUST AND PULMONARY DISEASE

With Special Reference to Silica Dust

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Saranac Laboratory for the Study of Tuberculosis of the Edward L. Trudeau Foundation

The current interest in diseases of the lung due to the inhalation of dust is largely the result of evolution in industry. The phenomenal developments during the past quarter of a century have produced a host of new occupational hazards. Legislation has been enacted to provide compensation for disability to workmen exposed to many of these hazards and numerous states have extended their laws to include occupational diseases resulting from the inhalation of fumes, dusts, and gases which damage the pulmonary tissue. Fortunately in pace with this development and because of legislation the industrial use of many such substances has been curtailed. Protective devices have also been perfected and nontoxic substitutes have been found for most of the more injurious materials in industrial operations.

A grave hazard in the form of silica dust however, still exists in industry. It is of outstanding importance, *first* because its use is so widespread, and *second* because it increases susceptibility to pulmonary infection and particularly tuberculous infection.

To comprehend the silicosis problem certain fundamental principles must be appreciated. These have been derived from physical and chemical studies of atmospheric dusts in different industries

and from clinical and postmortem examinations of the employees, supplemented by experimental investigations. They involve a knowledge of the character of the dust inhaled, its atmospheric concentrations, the duration of exposure, and the changes that result in the lung from its inhalation.

Character of the dust. Two factors are of prime importance: the mineralogic composition and the particle size. All studies to date have shown that silica is the only component of a dust that causes a specific reaction of significant intensity in the pulmonary tissue, and as far as is known the silica must be either in *free* state or *combined* in the form of asbestos. Silica (SiO_2) is the oxide of the mineral element silicon. It is extremely hard and withstands exposure to heat and acids, but is somewhat soluble in alkalis and water. Free silica in its crystalline state is most common as quartz. Of the amorphous hydrated forms of free silica, opal and diatomaceous earth are well known examples. Combined forms are those in which silica exists in combination with bases such as in feldspar, talc, and asbestos. These compounds are known as silicates. Reference may be made to the text book by Ladoo¹ for a complete and useful list of industrial processes in which these different forms of silica are used.

*Read at the Annual Meeting of the Medical Society of the State of New York
New York City May 12 1938*

It has been established that particles larger than ten micra in diameter can be eliminated from etiological consideration. Those of greater magnitude are seldom found in the terminal air spaces of the lungs. The defensive mechanisms of the upper respiratory tract and the small bronchioles prevent their access to the terminal air passages. Moreover, particles greater than ten micra in diameter are usually so heavy that they settle out of the atmosphere quite rapidly and hence are seldom present in appreciable concentrations at the breathing level. Probably, only particles less than three micra in diameter are of very great significance as it has been repeatedly demonstrated that those between three and ten micra are relatively inert.

Atmospheric Concentration The concentration of the exceedingly small particles is most important in estimating effective dosage of dust. The number inhaled will depend primarily upon the amount suspended in the atmosphere. Just how high this concentration must be before demonstrable changes result in the lung has been the subject of considerable discussion. Although the minimal dosage required is unknown, it has been stated by Cummings² that a concentration of five million particles of pure crystalline silica dust per cubic foot of air probably constitutes the primary threshold under which a normal man may work for many years without impairing his health. This figure may not be applicable in every industry, but at least it has been accepted as an engineering bench mark for control measures. It does not necessarily apply to atmospheres containing mixtures of silica and other kinds of minerals. Information is now accumulating which indicates that the presence of other minerals in a dust containing silica tends to modify the amount of the silica which is inhaled.

Duration of Exposure The duration of exposure is a determining factor in the amount of dust that is inhaled. In a very general manner it bears a reciprocal relationship to the atmospheric concentration.

Within certain limits a short exposure to excessive amounts of a particular dust of an effective size will produce the same degree of pulmonary reaction as

a longer exposure to a more moderate concentration.

An accurate occupational history is essential for an estimation of this time factor. It may be difficult to obtain, particularly when information relative to a specific dust must be elicited. Generally a man's occupation in any given industry is so varied that a constant exposure to one type of dust seldom occurs. A rock driller, for example, gives a history of employment in many different mines, each of which may involve work in rock of different composition. Even in one mine, the occupation of the miner covers many different jobs with exposure to dust from relatively pure ore to those with a high silica content. Some men work exclusively underground, others in surface mills, and still others are transferred from one to the other. The aim of the history is to determine as exactly as possible the number of years that a workman has spent at these various jobs and to correlate this information with the nature of the dust encountered in each of them. The satisfactory history accounts for every year of his employment with an estimate of the amount of silica in each case.

With a knowledge of these factors, observations on the tissue response to dust become more significant. Postmortem studies of lungs of workers and of experimental animals reveal that inhaled dusts can be classified into two main groups—an inert group and an active group. The inert dusts cause little or no damage to the pulmonary tissue, are expelled, remain dormant or are ultimately absorbed. The active silicious dusts are followed by inflammation, result in fibrosis, and favor infection.

Inert Dusts The inert dusts are relatively harmless and initiate a reaction no more severe than that caused by any substance foreign to the pulmonary tissue. Typical examples of such dusts are coal, iron, cement, and gypsum. Particles of this nature that reach the terminal alveoli are taken up by large phagocytes commonly called dust cells. The function of these actively motile cells is to prevent accumulation of foreign particles in the alveolar spaces. Many migrate into the bronchi and are expectorated. The majority of them, however, find their way

into the lymphatic system of the lung and, by it, are carried to the lymph nodes. This system is of paramount importance in the removal of inhaled dust from the terminal air spaces.

Dust particles that reach the lymphatics are carried along the perivascular and peribronchial trunks to the intrapulmonic lymphoid masses that lie at the dividing points of the bronchi and vessels. Many particles pass through these filter masses and eventually reach the tracheobronchial lymph nodes at the hilum of the lung. In cases of prolonged inhalation of heavy concentrations of an inert dust, these filtering masses may become more or less clogged so that the dust particles begin to accumulate in the lymphatic channels. Massive exposure of this sort is usually accompanied by enlargement of the tracheobronchial lymph nodes. As with any other substance a slight proliferation of connective tissue takes place both within these nodes and about the afferent lymphatic trunks in the lung. These changes can often be visualized in roentgenograms of the chest as a widening in the root shadows and as an exaggeration of the normal linear markings. Such alterations appear only after many years of exposure to high concentrations of inert dust. Identical roentgenological changes may also be seen in long-standing cardiovascular disease and in certain infections; they are also often incidental to old age. They are not therefore sufficiently characteristic to substantiate a diagnosis of dust reaction.

Active Dusts. Clinically, it is impossible to assess the capacity of an industrial dust to produce fibrosis by the examination of a single case. In surveying large groups of men in the same industry who are apparently exposed to the same amounts of active dust not all will be discovered to have developed pulmonary damage. Whether this is due to variations in individual susceptibility or to varying effectiveness of the upper respiratory mechanisms, or to differences in exposure which are not detected by existing methods of history taking is still a matter of debate.

Experimentally, where many of these factors can be controlled grades of tissue reaction in various members of a large group of animals are much less marked.

At the Saranac Laboratory animals have been subjected to inhalation,³ to intravenous,⁴ intraperitoneal,⁵ and subcutaneous⁶ injections of known concentrations of small particles of pure minerals. The tissue responses to such particles have been studied at definite intervals. At the present time, enough evidence has accumulated to allow rather accurate estimates of the relative toxicity of the dusts employed.

Thus far only those dusts containing silica have proved to be harmful. In discussing the pathology of an active dust, therefore, only that condition brought about by the inhalation of silica will be considered.

It was formerly held that only the free forms of the mineral caused damage to the pulmonary tissue. In recent years, however, some of the silicates have been regarded with suspicion. One at least—*asbestos*, a silicate of magnesium—has proved to be definitely irritating. The pulmonary pathology of *asbestosis* and its appearance on roentgen films is distinct and can be differentiated from that of other pneumoconioses. It causes a diffuse obliterating fibrosis that imparts to the chest roentgenograms a "ground glass appearance." The tissue response is never nodular as in *silicosis*. It starts as collar-like sheaths of fibrous tissue about the terminal bronchioles and as the exposure continues it extends peripherally into the parenchyma of the lung. In the advanced case there is a diffuse fibrous replacement of functional lung tissue often associated with chronic fibrous pleurisy.

Pure crystalline silica when inhaled is first acted upon in the same way as an inert dust. The particles are phagocytosed by large mononuclear dust cells that eventually find their way into the lymphatic system of the lung. At this point, however, the tissue response becomes totally different. Whereas inert dusts initiate little or no reaction within the lung silica dust stimulates the tissue cells and produces an inflammation followed by proliferation of connective tissue. Since the dust is early transported into the lymphatics the first detectable evidence of this reaction appears in the lymphoid tissue about the vascular tree and in the lymph nodes at the root of the lung. As these changes proceed the efficiency of

the pulmonary lymphatics as a draining and filtering system becomes impaired and inhaled silica particles can no longer be effectively eliminated from the alveolar spaces. The dust-laden phagocytes tend to accumulate in all parts of the lung, first in and about small peripheral masses of lymphoid tissue and later in the alveolar septa themselves. The silica particles thus become concentrated at focal points, a chronic inflammation occurs, connective tissue forms, and a characteristic silicotic nodule of hyaline fibrotic tissue results. With continued inhalation of silica the number and size of these nodules increases. In the course of time, barring infection, the lung becomes studded with uniformly scattered, firm circumscribed nodules of fibrous tissue.

The pathological condition in the lung has now reached the stage where it can be recognized as silicosis on the roentgenogram which is the most reliable basis for a clinical diagnosis. This is the stage of "nodulation" with discrete shadows, rather uniform in size, density, and distribution scattered throughout all portions of the lung fields. In late stages the development of compensatory emphysema at the bases disturbs the uniformity of the distribution.

Not all silicotic conditions of the lung are manifested by simple nodule formation. In many instances massive areas of fibrosis are present in one or more parts of the lung. They are frequently bilateral and may be symmetrical or asymmetrical in distribution.

The reason for the development of such areas is often difficult to determine and is still a subject of debate. Some observers are of the opinion that these massive lesions result from conglomeration of previously existing discrete nodules of simple silicosis. It cannot be denied that with continued inhalation of silica some nodules do increase in size and fuse locally to form small conglomerate foci. Lesions of this type, however, are scattered throughout the lung and seldom become large enough to be confused with the massive areas of fibrosis. If lesions of the latter type are the result of fusion of discrete nodules they should have numerous points of origin scattered throughout the lung and eventually result in uniform and complete fibrosis of the entire

organ. It may be argued that a small portion of the lung received more dust than another and consequently developed a massive lesion. To justify this view it must be demonstrated that more inhaled silica particles are deposited in certain areas of the normal lung than in others. Observations on the lungs of experimental animals and on those of early cases of uncomplicated human silicosis that come to autopsy have failed to substantiate this view. They have likewise failed to confirm the opinion that a localized atelectasis of the pulmonary tissue is the factor responsible for the diffuse fibrosis.

A third possibility is the effect of other minerals associated with silica. It is known that such dusts tend to accumulate at the periphery of silicotic nodules where they produce the formation of more or less cellular connective tissue. Fusion of such reactions about contiguous nodules might conceivably be responsible for conglomerate foci. But if this is true such a process should result in a diffuse generalized fibrosis.

The most likely explanation for massive lesions of fibrosis is that they occur in regions of the lung which have been injured by infection. Such injury leaves residual granulation or scar tissue and impairs the lymphatic drainage so that inhaled silica particles can no longer be eliminated effectively from those regions. Accumulation of coal or other dust in pulmonary scars is well-illustrated in specimens with apical foci of healed tuberculosis. A common finding about almost any fibrotic or calcified tubercle is a peripheral zone of dust pigment often so concentrated as to obscure the microscopic characteristics of the lesion. A similar change is also observed about many other scars of unknown etiology. These observations lead one to believe that particles of inhaled dust accumulate in certain areas of the lung, not because more arrive at the focus, but because fewer are eliminated by way of the lymphatic system. The result is a localized accumulation of dust. When the dust is silicious, the excessive local concentration exerts its maximum effect, an unusual number of nodules develop and diffuse fibrosis results from the action of the silica on any pre-existing scar tissue.

Silicosis and Infection. The majority

of the massive fibrotic lesions of advanced silicosis are associated with foci of infection within the lung. In most instances the etiological agent is the tubercle bacillus. When such lesions first develop the infection is most often latent, scar tissue continues to form at its periphery and the area increases in extent. Ultimately the silica reactivates the encapsulated focus harboring the bacilli and the infection spreads very slowly. Foci of this kind, which are due to the combined action of tubercle bacilli and silica, are generally designated as "silico-tuberculosis."

In many cases it is difficult to obtain clinical evidence of a bacillary infection within such lesions. The usual picture of uncomplicated phthisis is frequently absent and the sputum often remains negative for acid-fast bacilli even after examination of numerous specimens. Repeated guinea pig inoculations are often necessary to demonstrate a positive sputum.

Generally, however, the larger number of these massive lesions if followed long enough will eventually reveal definite evidence of tuberculosis. Although delayed, the clinical symptoms and signs of infection will make their appearance and serial chest roentgenograms will show extension of the shadows which may ultimately go on to cavity formation.

The presence of active infection within these lesions has been verified by autopsy. In 196 specimens of silicotic lungs thus far examined at the Saranac Laboratory, forty-three revealed massive fibrotic lesions of which twenty-nine showed active tuberculous involvement. Anatomically such lesions appear as irregular masses of firm grey or black fibrous tissue with linear extensions into the surrounding lung. Often they extend to the pleura and are accompanied by dense pleuritic adhesions. The tuberculous complication within the mass is identified by scattered islands and bands of granulation tissue, foci of caseation in various stages of organization or by cavity formation. The clustered tubercles of bronchogenic spread or the widely scattered lesions of hematogenous dissemination are much more uncommon in silicotuberculosis than in simple phthisis. Apparently the massive fibrous tissue traps the tubercle bacilli and prevents their spread to distant foci.

Not all manifestations of tuberculosis in the silicotic subject are of the massive fibrous type. There are cases in which the infection localizes in and about pre-existing silicotic nodules. The center of the nodule becomes caseous and about its periphery a zone of tuberculous inflammation is seen. This change results in an increase in size of the nodule and a loss of its sharp definition. Roentgenologically, the discrete nodular shadows seen in uninfected silicosis now have fuzzy indistinct borders. This form is referred to as the "perinodular type." Clinically it is manifested by early symptoms of intoxication, the presence of bacilli in the sputum, and early fatal termination.

Although tuberculosis is the most frequent complication of silicosis, other forms of pulmonary disease may occur. Chronic bronchitis and bronchopneumonia are more common than in normal subjects. In certain industrial groups, notably foundry employees, the increased incidence of pneumonia has been attributed to the extreme changes in temperature and humidity rather than to the inhaled dust. Bronchial spirochetosis occasionally complicates silicosis as found by Cummings⁷ and Proske⁸ in a survey of a large mining population. It responds favorably to treatment and appears to be incidental to the deposition of dust within the lung. Pulmonary carcinoma has been attributed to the irritating properties of inhaled dust but a recent study by Vorwald and Karr⁹ disclosed that this type of malignancy was no more frequent in silicotics than among the general population. To date therefore, it has not been satisfactorily demonstrated that these forms of pulmonary disease bear an etiological relationship to particles of dust inhaled into the lung.

Summary

Certain factors should be considered in evaluating the etiological relationship between dust and pulmonary disease. These factors pertain to the character of the dust, atmospheric concentration, duration of exposure, tissue changes that result from its inhalation, and the associated susceptibility to infection.

The character of the dust is of prime importance because a mineralogical com-

position of silica and a particle size not greater than ten and probably less than three micra in diameter constitute to date the only dusts that cause significant damage to the pulmonary tissue

The atmospheric concentration is second in importance only to the character of the dust for the number of small particles inhaled depend largely upon the amount suspended in the air at the breathing level of the workmen

The duration of exposure is significant because it is also a determining factor in the amount of dust inhaled. It bears a reciprocal relationship to the atmospheric concentration. Although the time element is still theoretical it is obvious that a short exposure to finely divided quartz particles will result in much less damage to a normal lung than will a long exposure to the same concentration

The pathological changes in the lung must be interpreted with a knowledge that dusts can be classified into two main

groups—the inert dusts that cause little or no damage to the pulmonary tissue and the active silicious dusts that are followed by inflammation and result in fibrosis. The latter is characterized anatomically in asbestosis by a diffuse involvement of the pulmonary parenchyma, in the case of free crystalline silica by one of two forms, a generalized nodular type or a localized conglomerate type.

The susceptibility to infection is a paramount issue because tuberculosis is the most frequent complication of silicosis and is responsible for the majority of the massive fibrotic lesions within the lung

Finally, with consideration of all these factors, the most reliable basis for a clinical diagnosis of pulmonary disease due to inhaled dust, with or without infection, is the chest roentgenogram in which characteristic patterns conforming to the different anatomical types are visualized

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Discussion

HOMER SAMPSON, PH D, *Saranac Lake*—Before discussing the problem of pneumoconiosis—silicosis in particular—it will be necessary to consider the “tool” from which the diagnosis is most commonly made—the roentgenogram. All roentgenograms will not always tell the truth. The quality of high-grade roentgenograms must be evaluated upon density, contrast, and definition. The prime requisite is to know one has the best product obtainable.

“There are many roads that lead to Rome,” also there are various procedures to obtain the desired result. Stereoroentgenograms are recommended. Focal spot affects definition, voltage concerns contrast, distance influences definition, magnification, and distortion. Time is used to arrest motion.

Interpretation is based upon a thorough appreciation of the “healthy pulmonary pattern,” and an equally intimate knowledge of the physical structures of the various mani-

festations brought about by the inhalation of dust. When definite changes are present, a diagnosis is only arrived at after a correlation of all data available.

“Linear exaggeration,” “feathering,” “linear predominance” are terms which arose early in the problem of diagnosis, and which still exist. These are many times used to explain a dust exposure, when at the autopsy table little or nothing was found; hence the term “the stage of imagination” for this indefinite alteration of the linear pattern. True, linear exaggeration does often exist, but it does not need a history of “this or that” to see it. It may be caused by a variety of conditions, and in some instances is that stage ahead of nodular fibrosis.

Nodular fibrosis, typical or atypical, and classified into convenient grades or degrees, is still the obvious problem. Upon this roentgenological finding, and associated with a checked and double-checked exposure to silica, the diagnosis is usually made. Due to

SCIENTIFIC GLANCE AT LYMPHOPATHIA VENEREUM

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The history and description of lymphopathia venereum are by this time fairly familiar to medical men, due to the increasing number of articles which are being published from time to time dealing with this general subject. More precisely, however, the efforts of those who are engaged in concentrated research, whose object is to isolate the disease as to essence, etiology and histopathology in order to evolve a specific treatment are less well-known and their results unguessed.

In both the Americas and in Europe chiefly France, Germany and England and even in the Orient, men of science¹ some of whose names have become almost synonymous with lymphopathia venerea, are constantly studying and experimenting hoping finally to produce the weapon which will cut down this universal scourge. For that it is universal and not climatic, was one of the first points to be definitely established as reports from various physicians appeared and were gathered together by chronologists, notably Hellerstrom² in his compact history, which appeared in 1929. In this city alone (Philadelphia) we are following 490 cases, which we believe to be the largest single series yet published.³

Guided by his own deep interest in this subject, the author has chosen for brief discussion three points of particular appeal to the inquiring mind:

1. What proof is there that this affection is a separate and distinct entity?

2. What supportive evidence can be at tested as to the histopathology?

3. What attempts have been made to evaluate the specificity of the intracutaneous test described by Wilhelm Frei?

The first question is answered by animal experimentation, which is being carried out on a wide scale. The first successful animal inoculations were made by Hellerstrom and Wassen in 1929.⁴ Using monkeys they succeeded in transmitting the disease by intracerebral injection of

gland suspensions, producing a generalized leptomeningitis which presented histologic changes similar to those described by Nicolas and Favre.⁵ Monkeys, rabbits, guinea pigs, and white mice are used, with the macacus rhesus and cynomolgus the subjects of choice. The rabbit is the least satisfactory,⁶ and when susceptible is claimed by some⁷ to be not mutually responsive to virus with the other experimental animals. All are agreed, however, that lymphopathia venerea, as a separate disease entity with distinctive characteristics and effects, is freely and interchangeably transmissible among humans, among certain animals, and among humans and animals.

Our own experimentations on animals,⁸ which are comparatively limited, consisted mainly in the injection of pus obtained from an unopened bubo of a patient presenting clinical manifestations of lymphopathia venerea and a repeated Frei test. Twenty-four white mice were used. Three mice, representing the first series, were injected intracerebrally with the purulent material. All died within forty-eight hours. Prior to death the animals became quite active and rushed about the cage, banging their heads and bodies as if in distress. In the interim of attacks it was usual for the mice to reel, run, fall over to one side, and then arise with some difficulty. The brains of these were macerated, diluted with salt solution, and injected intracerebrally into a second series of three white mice. These died about the fourth day. A third, fourth, fifth, sixth, seventh, and eighth series were treated in similar manner but it was noted that the interval between the time of injection and the time of death was definitely increased with each successive series. Whereas the fifth series was alive and well for a period of two weeks, the last or eighth series is still alive—approximately three months. It is of interest to note that material from the second, third and fourth series was pre-



Fig 1 Histologic section showing area of suppuration surrounded by epithelioid cells arranged in palisade formation

pared according to Frei's technic and subsequently injected intracutaneously into several patients known to be afflicted with lymphopathia venerea. A positive Frei reaction was obtained in each instance.

The histologic picture is conceded by all to be characteristic and by some^{9, 10} is considered pathognomonic. Nicolas¹¹ states that the histologic picture of this disease cannot be counfounded with that of any of the adenopathies studied thus far — tuberculosis, chancroidal bubo, syphilis, ordinary infection, or neoplasms. Ordinarily, a subacute adenitis is shown by edema and hyperplasia of lymphoid tissue. Many abscesses are present, around the periphery of which is noted a zone of epithelioid cells, often arranged in palisade formation (Fig 1, 2). Cellular debris, polymorphonuclear leukocytes, and monocytes are contained within the abscess cavities. Besides the multiple areas of suppuration, the glands are filled with granulation tissue consisting of cells with more than one nucleus, an occasional giant cell of the Langerhans' type, numerous plasma cells and fibroblasts. It has been repeatedly mentioned that the giant cells are located frequently at the outer

border of the epithelioid cells, although in our studies we have been unable to confirm this routinely^{12, 13}. Engorgement of the blood vessels and dilatation of the lymph sinuses are seen.

The third of our questions has been hotly debated in Europe, especially by French scientists Ravaut, Lepine, Levaditi, Flandin, Turiaf, Vigne, Bonnet, and numerous others are in constant study and communication on this subject. But while there is difference of opinion, the balance of present belief favors specificity. The existence of an energy from one cause or another cannot be disregarded. Of twenty-eight contemporaries whose reports the author gathered,¹⁴ eighteen reported one hundred per cent specificity, and five a percentage in the nineties.

Our tests for the acceptance or rejection of the Frei test as specific included attempts to rule out still further such diseases as syphilis, gonorrhea, tuberculosis and ulcer molle, which have been and are still considered by some the etiologic factors in lymphopathia venereum¹⁵.

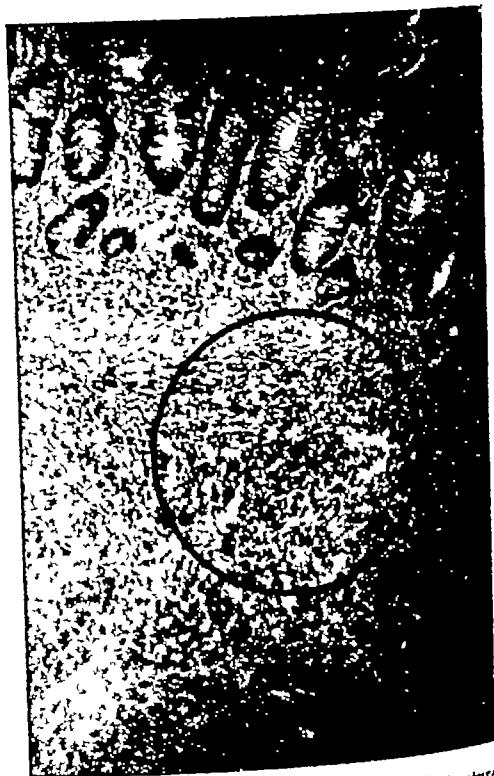


Fig 2 Low power section of rectal structure due to lymphopathia venerea

TABLE I

	Cases	Negative	Positive
Syphilis	97	71	26
Gonorrhea	88	69	19
Ulcers molle	41	38	3
Tuberculosis	45	33	12

In the case of tuberculosis the problem of differentiation is quite complex, especially when tuberculin is in question. In a large percentage of cases, this is apt to be inert or there is considerable chance of falsely interpreting many reactions as positive. The new standard tuberculin termed purified protein derivative (PPD), as prepared by Seibert and adopted by the National Tuberculosis Association, is considered of greater value than O.T. in that it is free from salts and

nonspecific proteins and its potency is reproducible. As shown in Table I, forty-five patients in our series were tested intradermally with PPD in the first dilution (0.00002 Mg). Their reactions were read and measured in forty-eight hours. The second dilution (0.005 Mg) was injected in cases that were negative to the first.

That the Frei test is specific, we feel sure, that it has not always proved specific cannot be denied. The solution may lie in the mode of preparation of the antigen in a hyperallergy or an anergy or in the theory of Coutts and Bianchi¹⁶ that there are two types of virus and therefore two types of antigen should be prepared.

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Encouraging advances in the treatment of cancer were announced at the annual meeting of the Royal Cancer Hospital, London on May 12. Mr. Cecil Rowntree, senior surgeon, said: "We have now learned the best ways of dealing with the widely different types of malignant disease. We know now which are the kinds of cancer best treated purely by surgical operation. We know that in other forms such as cancer of the tongue, the mouth and the throat we can confidently expect such results from radium bomb treatment as have never been equalled or indeed approached by any other form of therapy, and with the Schaoul type of x-ray machine we are constantly and consistently curing such diseases as cancer of the lip and face, and cancer of the skin with such certainty, simplicity, and safety as has never been experienced before. In fact, give us a case of cancer in any of these situations in a reasonably early stage and we will now guarantee its complete and speedy disappearance."

The annual meeting of the Seventh District Branch of the Medical Society of the State of New York will be held at the Oak Hill Country Club in Rochester on September 22. The program is already being arranged.

Some unique features will be inaugurated, including the much talked-of film "The Birth of a Baby." The afternoon session will take the form of luncheon-forums where such topics as Sulfanilamide and other new drugs, Pneumonia Gastrointestinal diseases and the Feeding of Infants and Children will be discussed by the question and answer method. The outstanding attraction of the meeting will be an address by Dr. Wm. N. Macartney of Fort Covington, the author of "Fifty Years a Country Doctor" which book has recently become one of the nation's "best sellers." The Oak Hill Country Club is an ideal place for such a meeting where several hundred can be accommodated and a large attendance is expected.

GRANULOSA CELL TUMOR OF THE OVARY

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A group of ovarian tumors capable of producing profound effects on the secondary sex characters of the individual, has been recently brought to our attention by Robert Meyer¹ in Germany and Enul Novak²⁻⁵ in America. The most common, and perhaps the most important neoplasm in this group is the granulosa cell tumor. We are presenting two such cases, and will endeavor to outline the origin (Chart I) and physiology of this tumor and correlate it with its clinical manifestations.

The first tumor of this type was reported by Rokitsansky in 1855, Von Werdt,⁶ in 1914, designated it granulosa cell carcinoma. Although many tumors of this type have been described, confusion

existed until Meyer presented his theory of histogenesis in 1929.

At present there are about 200 properly designated cases reported in the literature. A proper understanding of the pathology and biologic characteristics of this growth, combined with resurvey of old material, has resurrected many cases formerly classified as sarcoma, carcinoma, or endothelioma. The reported incidence is ten to fourteen per cent of primary malignant ovarian neoplasms.

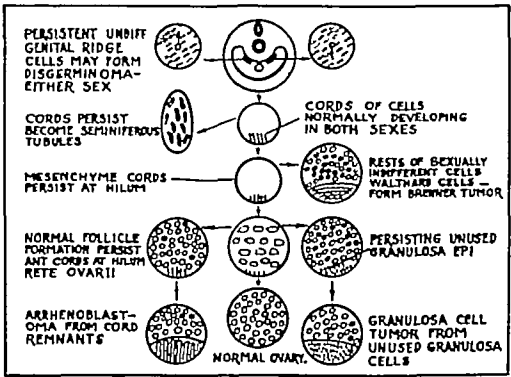
In women beyond the menopause these tumors produce remarkable effects. The uterus becomes enlarged and pseudomenstrual or even true menstrual bleeding supervenes. The bleeding is from a hyperplastic endometrium, exhibiting the typical picture of long-continued hyperfolliculism (Case 2). Other symptoms of note are feeling of renewed youth, swelling of breasts, and occasional galactorrhea.

These tumors vary in size from a few mm to many cm (Case 1 and 2), they may be smooth or lobulated, cystic or solid, and are often light yellow brown in color. The extreme variability of the microscopic architecture has caused confusion. Novak⁴ states that this "extreme variability by different and by one and the same tumor in different parts, makes it important to study numerous blocks."



Fig 1 Solid granuloma cell tumor (Case 1)

CHART I—SCHEMA OF HISTOGENESIS OF GRANULOSA CELL AND OTHER RELATED OVARIAN TUMORS



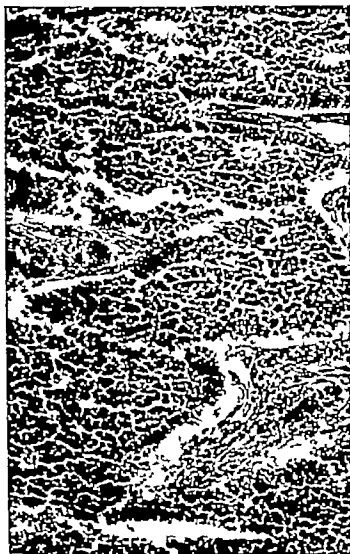


Fig 2. Cyllindromatous granulosa cell tumor. Low power (Case 1)

In one variety the granulosa cells are clumped around a central lumen and resemble primordial follicles. The Call-Exner bodies, granulosa cells about an area of liquefaction, are characteristic of this type. The cells themselves are small, round to polyhedral and resemble normal follicular cells. This variety has often been misnamed "adenocarcinoma." The second, or cylindromatous type, consists of cylindric masses of granulosa cells divided by hyalinized connective tissue trabeculae, sometimes likened to watered silk. These have been reported as cylindroma, endothelioma, and adenocarcinoma. A third variety in Novak's classification, the diffuse type, shows transitions between the folliculoid and cylindroid patterns. Finally there is the sarcomatous type which eludes diagnosis unless an area similar to one of the other varieties can be distinguished.

The degree of malignancy is in most instances low (Case 2) and recurrences exceptional. Novak⁴ prefers to speak of them, therefore as granulosa cell ade-

nomas; however, five to ten percent⁴ of the reported cases are distinctly malignant and recur.

Case Reports

CASE 1 A white female, twenty-two years old, was operated in 1932 for intestinal obstruction. At operation the pelvis was entirely negative. The second admission was in August 1936, for menorrhagia and metrorrhagia of four months duration. Examination under anesthesia revealed no pelvic pathology. Curettage showed moderate endometrial hyperplasia and an excessive folliculin reaction. Bleeding recurred three months later and continued for one month thereafter. Pelvic examination revealed a firm rounded mass thought to be a fibroid of the uterus. Histologically the endometrium was similar to that of the previous curettage and at laparotomy a

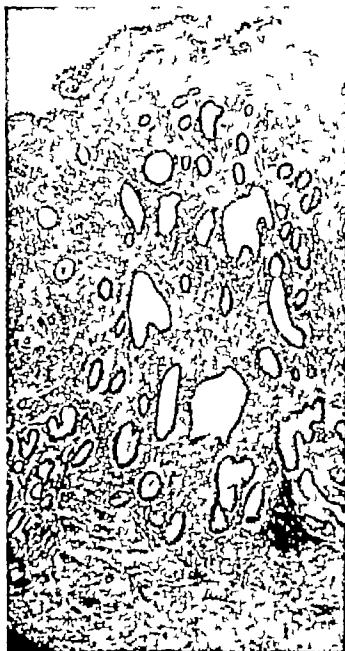


Fig 3. Hyperplasia of endometrium (Case 2)



Fig 4 Cystic granulosa cell tumor (Case 2)



Fig 5 Folliculoid granulosa cell tumor Low power (Case 2)

solid, yellow-brown, encapsulated ovarian tumor, eight by seven by five cm was found (Fig 1) Microscopically the tumor consisted of cylindromatous masses of small round to polyhedral cells with large dark-staining to vesicular nuclei, suggesting follicular epithelium Typical Call-Exner bodies were present (Fig 2) The patient, now in her fourth postoperative month, has had no recurrence of symptoms

CASE 2 A seventy-year-old white female noticed uterine bleeding fourteen years after menopause and six months prior to admission This occurred each month and the bleeding lasted three to four days The last episode persisted for eight days Carcinoma of the uterus was suspected but curettage revealed hyperplasia of the endometrium (Fig 3) The patient remained well for a short time, then bleeding was re-established An exploratory operation was performed and a fibroid uterus and an ovarian cyst were removed. The partially cystic, encapsulated yellow-brown ovarian tumor, 13 by 7.5 by 5 cm (Fig 4) microscopically presented a follicular pattern, with single circles of granulosa cells about small clear areas, which presumably contain the follicular hormone (Fig 5) The patient, now in her fifth postoperative year, has had no return of symptoms

Summary

The preoperative diagnosis was a dif-

ficult task in the first case, since during active sex life interpretation of ovarian hormonal dysfunction is complex She does, however, illustrate hyper-folliculinism as manifest by prolonged bleeding from an endometrical hyperplasia

The second patient presents an easier diagnostic problem Study of similar cases has shown that in a patient beyond menopause, who exhibits menstrual or pseudomenstrual bleeding, and in whom curettage rules out carcinoma, granulosa cell tumor should be suspected If the endometrium shows a true hyperplasia and an ovarian tumor is palpable the diagnosis is then certain

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The only person to whom a Doctor can say exactly what he thinks about another

Doctor is his wife That is why practically all Doctors are married—*Joyce Dennis*

COMBINED NASAL RECONSTRUCTION AND SUBMUCOUS RESECTION

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Deviations of the nasal septum and external deformities of the nose frequently are associated in the same individual. Both deformities are usually traumatic in origin, which explains their coexistence.

Deviations of the nasal septum if sufficiently marked, interfere with respiration and must be surgically corrected to restore normal intranasal function. The usual operation for the correction of septal deviations is the so-called submucous resection.

External deformities of the nose are generally corrected purely for cosmetic reasons. The surgical correction of choice is some type of intranasal rhinoplasty.

The purpose of this paper is to show the interdependence of the submucous resection and nasal reconstruction. On the one hand, there are distinct advantages in the combination of these procedures at the same operation. On the other hand, there is a penalty that the patient may have to pay for the surgeon's failure to recognize and appreciate this relationship.

There are three main advantages that

the combination of the submucous resection and nasal reconstruction offers the patient:

1 A more satisfactory correction of certain types of deviated septa can be obtained than is possible by the performance of a submucous resection alone.

2 Valuable transplant material may be obtained from the submucous resection that can be employed in the reconstruction of saddle deformities of the nose.

3 The patient is saved the anxiety, expense, and inconvenience of an additional operation.

The penalty that the patient may have to pay for the surgeon's failure to recognize this aforementioned relationship is that although the patient may have excellent intranasal function as the result of the submucous resection he may be condemned to the acceptance of his deformed nose. The submucous resection may have been done in such a fashion that the subsequent performance of a nasal reconstruction would be dangerous and might be attended by a collapse of the nose.

Fig 1 Submucous resection in nose of normal external appearance.

A Amount of cartilage that can be removed leaving adequate framework to support external nose.

B Submucous resection in which too much cartilage had been removed dorsally. This would be in constant danger of breaking at thinnest point and resulting in saddle nose.

C Submucous resection in which too much cartilage had been removed anteriorly. This would be in constant danger of breaking at thinnest point and resulting in drooping of tip of nose.

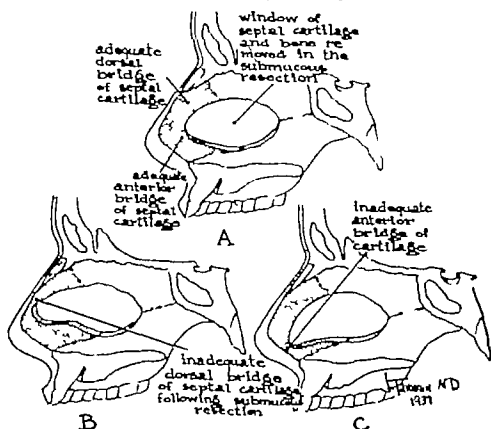




Fig 2 Elongation and drooping of nasal tip following submucous resection in which too much of anterior end of septum had been resected.—After nasal reconstruction

The technical considerations which bear out this statement can best be shown by a study of the general principles underlying the submucous resection and the more common types of corrective rhinoplastic procedures

General Principles of Submucous Resection for Correction of Deviations of the Nasal Septum

The rationale of the submucous resection is the separation of the mucoperichondrium overlying the nasal septum and the removal of the denuded obstructing bone and cartilage. This separation is completed on both sides of the septum in the region of the obstruction. Then a window of cartilage and bone is removed leaving a framework of cartilage to support the bridge and the tip of the nose (Fig 1-A). The mucoperichondrial flaps are then allowed to fall back into place and are held

in approximation by some type of intranasal packing

If not enough of the obstructing cartilage is removed in this fashion, the functional deformity will not be corrected

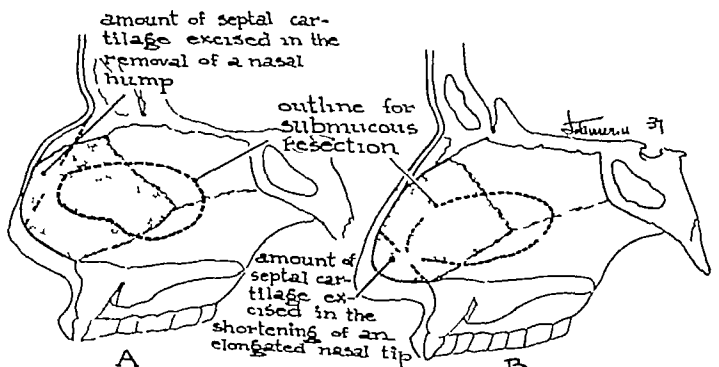
On the other hand, if too much cartilage is removed, the remaining framework of cartilage may be inadequate for the support of the external nose and one of two deformities may result. *First*, a saddle deformity of the lower half of the nose, *second*, a drooping of the tip of the nose

A saddle deformity results when too little cartilage is left to support the bridge of the nose (Fig 1-B)

A drooping of the tip of the nose results when either the anterior bridge of cartilage is too thin, or, as is sometimes done, the submucous resection is begun at the anterior margin of the septum leaving no support to the tip of the nose (Fig 2)

Fig 3-A Amount of septal cartilage to be removed in correction of nasal hump. Note that submucous resection indicated while conservative for hump nose would leave an inadequate dorsal bridge if nasal hump were to be removed. Thus, if this case had had submucous resection as indicated prior to nasal reconstruction, subsequent removal of nasal hump would leave too thin a dorsal bridge and nose might collapse.

B Amount of cartilage to be excised from anterior end of septum in shortening of elongated nasal tip. Note



that submucous resection indicated would leave adequate anterior bridge for elongated

tip but would leave inadequate bridge if septum were to be shortened.

Fig 4 Hump nose. Before and after nasal reconstruction and submucous resection



Fig 5 Elongated nasal tip. Before and after correction.



Fig 6. Saddle nose. Septal cartilage from submucous resection was used as transplant to fill in depression of bridge.



Fig 7 Fracture deviation of nose. Correction by combined submucous resection and nasal reconstruction. There was deviation high in dorsum of septum excised in removal of hump. This devi-

General Principles of Nasal Reconstruction

Most plastic surgeons agree that some modification of Joseph's intranasal technique is the operation of choice for the correction of nasal deformities.²

The principle of this operation is the separation of the skin of the nose by intranasal incisions from the bony and cartilaginous framework. The framework of the nose is then either reduced to a new level or built up by the insertion of a suitable transplant. The skin is then allowed to shape itself to the modified framework.

In the reduction of the profile, including the removal of a hump or the general lowering of a prominent bridge, the nasal bones, the upper lateral cartilages, and a section of the dorsum of the nasal septum is removed (Fig 3-A).

The amount of tissue removed from the dorsum of the septum will obviously depend upon the desired profile line.

In shortening an elongated nasal tip, a triangular-shaped piece of cartilage and overlying mucous membrane is excised from the anterior end of the septal cartilage. The amount removed in this step will depend upon the amount of shortening desired (Fig 4 and 5).

Interrelationship of Submucous Resection and Corrective Rhinoplasty

In the description of the general principles of the submucous resection, emphasis was placed upon the necessity of leav-

ing an adequate bridge to support the dorsum and the tip of the nose. If this precaution is not observed, two deformities—saddle of the dorsum and a drooping of the tip of the nose—may result. These deformities are, fortunately, avoided by most competent rhinologists.

If the surgeon, however, fails to consider the possibility of the correction of an associated nasal deformity, he may remove so much cartilage both dorsally and anteriorly, that, although the remaining framework of cartilage is adequate for the support of the deformed nose, it would be insufficient if the dorsum of the nose were to be lowered or the anterior end of the septum shortened, as is done in a nasal reconstruction.

Thus, the patient may, without his knowledge and volition be deprived of the privilege of a subsequent rhinoplasty.

The advantages to the patient by the combination of a rhinoplastic operation and a submucous resection are obvious.

First The aforementioned eventuality would never occur. The nose is first reduced to the desired size and then a submucous resection is performed using the new level of the bridge as a guide to how much to remove dorsally, and the shortened anterior end of the septum as a guide to how much to remove anteriorly. Thus, the patient obtains cosmetic correction of his deformed nose and functional intranasal restoration (Fig 4 and 5). Performed in this fashion there need be no fear for the collapse of the bridge or the tip of the nose.

ation could not have been corrected by submucous resection since excision would have entailed removal of too much of dorsal bridge of nose.



Second In nasal deformities characterized by a saddle of the bridge of the nose, the excised portion of the septal cartilage removed in the submucous resection may be used as a transplant to fill in the depression (Fig 6). The use of an autogenous transplant such as this obviates the necessity for the excision of costal or ear cartilage or the use of ivory.

Third There are deviations of the septum extending high into the vault of the nose which are not correctable by the usual submucous resection since the deviation would be in the dorsal bridge of the septum necessary for the support of the nose. In this type of case, a rhinoplastic operation that would require the removal of a section of the dorsum of the bridge might include this high deviation

of the septum and thus be a valuable adjunct in the removal of intranasal obstruction (Fig 7).

Deflections or dislocations of the anterior end of the septum could be excised in shortening the tip of the nose. After this shortening had been accomplished, the submucous resection could be performed for the relief of the posterior obstruction.

Finally, the patient is saved the expense and inconvenience of an extra operation, if both operations are performed at the same time.

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BIRTH OF SIX PAIRS OF FRATERNAL TWINS TO SAME PARENTS

William Walter Greulich, New Haven, Conn. (*Journal A M A*, Feb 19, 1938), reports the case of a woman to whom a sixth pair of twins was born on June 12, 1937, at Putnam, Conn. The parents are both native New Englanders of relatively old Yankee stock, the mother was 36 and the father 57 when the last pair of twins was born.

These births have been verified from the records of the bureaus of vital statistics of Massachusetts and Connecticut, in which states they occurred. The male member of the oldest pair of twins died soon after birth but all of the other twins are living. All the twin pairs appear to be fraternal. The two members of each of the three pairs of like sexed twins are too dissimilar to be

considered monozygotic. The only history of previous multiple births in the present case is on the father's side.

There has long been a belief that twinning tends to run in families. Within recent years the existence of such a hereditary predisposition has been confirmed by investigators in Europe and in this country. It is usually assumed that fraternal twins are always produced by the fertilization of two ova derived from separate follicles either from the same or from different ovaries, that such double ovulations are exceptional and that they result from the aberrant functioning of an ovulatory mechanism the control of which is inherent in the maternal organism and cannot possibly be influenced by the father.

SHALE OIL CANCER

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This is a type of occupational cancer practically limited to the West Lothian district of Scotland, and occurring among "susceptible" employees engaged in the refining of shale oil (paraffin). It is a squamous-cell carcinoma and occurs on the upper extremities in only thirty per cent of the cases, the scrotum being involved in about fifty per cent of the cases, and the face or elsewhere in twenty per cent of the cases. It occurs in those who have come into direct contact with the shale oil for ten or more years, and especially in those refiners who come in contact with the *hot* oil. A warty dermatosis is usually present for several years, after which one of these "warts" undergoes malignant degeneration.

Case Report

R.P., age thirty-five, employee of a local

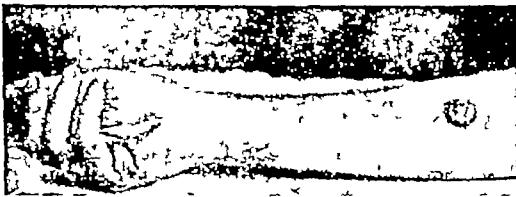


Fig 1

optical company had been grinding lenses since 1922, using equal parts of shale oil and kerosene. During his work, he is obliged to frequently "feel" the lens to ascertain whether it is being properly ground. As a result, much of this shale oil mixture is splashed upon his hands and forearms. Patient states that he had noticed several warty-like nodules on both forearms for past five or six years, but he never noticed any significant growth in any of them until four weeks prior to consulting the author. In the course of four weeks a small "pimple" had grown to the size of a twenty-five cent piece (Fig 1). Having seen a similar case in Scotland, the author instantly identified the tumor and removed it at once.

Pathological report (Dr Istvan Gaspar) We received about twenty-five cent piece sized excised skin, in the center of which there is a circular shaped, elevated tumor, 18 mm. in diameter. On cut section the tumor is pearly white, definitely cancerous and all layers of the skin, including the subcutaneous fat tissue seem to be infiltrated. However, the tumor does not infiltrate the layer through which excision occurred.

Sections show typical squamous cell carcinoma with epithelial pearls. The subcutaneous connective and fat tissue is infiltrated by the tumor. The line of excision, however, is free of tumor.

Diagnosis Squamous cell carcinoma of right forearm

182 VERSAILLES ROAD

FINED FOR SPEEDING TO SAVE LIFE

Physicians of New York City are warned by Dr. I. H. Dolin, of Brooklyn, "that under no circumstances, while making an emergency call, are they to exceed a 25-mile speed limit, even though it be a matter of life and death." He goes on to explain, in a letter to the *New York Post*:

I learned the above to my sorrow when I received a ticket for speeding on Flatlands Avenue, Brooklyn (a very desolate street), while on the way to a patient stricken suddenly with a heart attack.

My explanation to the motorcycle officer was of no avail. He gave me a ticket for speeding forty miles per hour.

The defendant in this incident was a contributor to the patient's death about five hours later.

When I was guilty with

after the death of

emergency call and photostatic copy of death certificate) I was informed by the judge that there was no excuse for any speed above twenty-five miles per hour, no matter what the extenuating circumstances, and that he had no discretion in the matter (an astonishing statement, indeed).

I was accordingly fined and convicted as a speeder for the crime of trying to save a human being's life.

Contrast my predicament with the real menace to life and limb of the ambulance which in the great majority of cases speeds madly on non-emergency calls and gets the right of way for doing so.

Over a half-million persons are exposed to silicosis in this country. Silicosis has increased over thirteen times—*California and Western Medicine*

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EDITORIALS

The National Health Conference

The National Health Conference, called at the instance of the Federal government's Technical Committee on Medical Care, has been held in Washington. Undoubtedly most of us have been kept informed as to what occurred, by the public press reports coming from the conference. Here labor, public health officials, social workers and administration officials sat down together with representatives of organized medicine, and the extension of medical care to those unable to purchase it was discussed.

If the conference had actually brought these diverse elements around the conference table to *work out plans* for extending medical care to those who are financially handicapped in obtaining it, great good might be expected to result. We fear however, that the emotionalism expressed by the social workers, and the very vagueness of the formula for Federal "grants in-aid" by the government agencies, carried implications of grave import to those of us who see further than the immediately present situation.

Dr. S. S. Goldwater, Commissioner of Hospitals of New York City, pertinently remarked to the conference that

"The program submitted (by the Technical Committee) arrives at its results by methods of calculation that are too simple to be reliable."

The program calls for the expenditure of \$850,000,000 at the end of a ten year period.

Finally, we learn from the *New York Times* of July 21, that although no positive action was taken by the conference yet, that "when the program is further worked out with the cooperation of various groups vitally interested, and particularly the medical group, the Committee (the Technical Committee) will go before Congress to ask for an appropriation for the first two years or so. Additionally, we are informed that appropriations will be asked from the legislatures of various states to enable them to take advantage of Federal grants.

We would welcome a continuing conference which in an atmosphere of philosophic calm and study, would bring all these groups together for discussion and which eventually would develop a set of principles to *provide medical care* for those unable to procure it among our people, and also which might enunciate plans fitted to the local community based on such principles.

The medical standpoint and attitude is heartily cooperative, as the President of the American Medical Association asserted at the conference.

We decry the undue haste to translate into legislative action the results of a few days' conference from which no decisions

were taken upon factual information. Those at the conference hardly had time even to study in detail the Technical Committee's presentation.

Organized medicine has feared the bureaucracy that compulsory health insurance would establish, and the creation of a political machine which would reach into every home. In this era of unprecedented spending, \$850,000,000 no longer impresses the imagination. Nevertheless it actually is a sizable sum of money for politicians to handle in doling out medical care.

We are not obstructionists. This is the time for medical statesmanship to take the "long view." As experts in this particular field, it is necessary that we give governmental agencies our best thoughts on the issues raised at the conference. County by county, state by state, any scheme or plan which is evolved must be carefully studied and its effects evaluated. The needs, medically, of the local community, must be apparent practically, not theoretically, and the circumstances under which aid is given must be surrounded with all possible safeguards. The grant of money must be protected from politicians. It must not become another political "pork barrel."

We strongly desire to see all our doubts dissolved as to the effect that this money coming from Washington will have. That it will bring no deterioration of the *quality of medicine* that it will provide, that it actually will provide a given community with what it needs, and supply what is actually lacking in medical care, and that it will leave the profession free from any sort of political control. Further, we need absolute assurance that Washington shall not be placed in a position to exert any sort of pressure-control through the use of this money, that provision to provide medical care shall not become a political slogan to win votes for anybody, or to unite voters. This would not be the first time that a worthy cause was used by interested politicians for ends other than those which are obvious. All these

factors and elements call for caution, clear thinking, and study.

Here is worthy work for the constituent bodies of our State Society. The County Society is the logical unit of organized medicine to pass upon the ultimate question of medical aid in its relation to the local community. The Federal government may lay down standards. The local community will know best whether these standards are applicable to it or not. At any rate at the present time, there is no actual pressing necessity which urgently calls for legislative enactment. Let us not "emote," let us be wise rather than otherwise.

A Fitting Memorial

The new Federal Food, Drugs, and Cosmetics Act is the memorial above all others that the late Senator Royal S. Copeland would in all probability have chosen himself. Spurred on by his medical knowledge and experience, Dr. Copeland fought the "pain and beauty" lobby in Congress for years without respite. If the new statutes are not all he might have desired in the way of public protection, they nevertheless represent a big advance over any of their predecessors and lay the foundation for additional necessary reforms.

Perhaps the greatest improvement in the new law is its inclusiveness. It brings under control all cosmetics except toilet soaps, all therapeutic devices in addition to drugs and all drugs employed for diagnostic purposes or to affect the structure or any function of the body.

In its prohibitory provisions the new law is both more comprehensive and more specific than the old. It outlaws cosmetics and foods which may be injurious to health and prohibits false or misleading labeling.

On the positive side it requires antiseptics to possess germicidal power, prescribes sanitary conditions for the production of food, drugs, and cosmetics, authorizes the inspection of factories, and requires clear, informative labeling of

products which may deteriorate, produce addiction, cause injurious physical consequences or which contain artificial chemical preservatives

To prevent tragedies such as last year's needless deaths from elixir of sulfanilamide, the new law forbids the marketing of new drugs before they have been thoroughly tested. Organized medicine has long urged some such provision. It took nearly a hundred deaths from an untested product to bring the need home to Congress—but the requirement is in the law now.

The Food and Drugs Administration of the Department of Agriculture, to which enforcement of the new law has been entrusted, has a great opportunity to safeguard the American consumer from foolish expenditure and actual physical injury. Its experience in this field and its traditional zeal in the cause of pure food promise well for honest and effective enforcement. If the new law is not perfection, at least it takes a long step toward the goal of consumer safety.

The Best Protection

There can be no doubt that since adoption of the group malpractice insurance plan by the Medical Society of the State of New York the physician enjoys a greater measure of protection than he previously had. For one thing he is assured of the solvency and reliability of his insurer—a certainty which was frequently lacking in the old days. For another, he knows that the company will fight to protect his good name as well as its pocket book, an important consideration to a professional man. Small "nuisance" settlements of unjustified claims, which save the insurer trouble but compromise the doctor's reputation and encourage litigation, have no place in the State Society's group plan.

In view of this it is surprising that many members still look to outside, fly-by-night companies to supply their malpractice protection. Let a persuasive

agent come along with a supposedly cheaper plan, and some physicians do not stop to investigate the reliability of the insurer, its financial assets or its willingness and ability to provide the best possible defense.

It is true that members are entitled to defense against malpractice claims by the State Society's Counsel whether they are insured under the Group Plan or not. Obviously, however, a better defense can be provided when Counsel and carrier work together than when Counsel is an outsider without official standing in the insurance company.

What costs least at the start is not always cheapest in the long run. The State Society's Group Plan offers the most complete, dependable protection to members at the lowest rates compatible with the service provided. Before tying up with an outside company, members are urged, in their own interest, to seek the advice and guidance of the State Society's insurance service.

Gastric Factor in Pellagra

There is clinical evidence at hand which warrants the belief that the stomach contains a specific factor which is necessary for the maintenance of a normal skin and central nervous system. The feeding of human gastric juice to sufferers from pellagra and polyneuritis has yielded gratifying results.^{1,2} Cases of chronic endogenous pellagra which failed to respond to an abundant diet plus the intake of vitamin B complex showed a rapid clinical recovery following the administration of human or swine gastric juice.³

This clinical observation now has experimental substantiation. Following the removal of the entire stomach and the portion of the duodenum containing Brunner's glands in young swine there developed after two months a clinical and

1. Sydenstricker V. P., Armstrong, E. S., Derrick, C. J., and Kemp P. S. *Am J Med. Sc.*, 1921, 1936.

2. Douthwaite, A. H. *Brit Med J* 2:535 1936.
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pathological picture closely resembling chronic fatal human pellagra. Intense itching, emaciation, loss of hair, muscular atrophy, change in posture, and a simple anemia became evident. These were later followed by profound involvement of the central nervous system.³

The pathological changes were rather varied. In the brain and spinal cord, there were degenerative changes in the nerve cells and a dilatation and thickening of the small blood vessels. The spleen in most instances was atrophic and the bone marrow was edematous. These were findings common to all the animals. In addition other findings were evident in one or more of the groups, such as cardiac hypertrophy, hyperkeratosis, ascites, and hyaline degeneration.

Petri and his coworkers³ state concerning this specific principle in the stomach that "particulars as to its nature and mechanism are not yet definable." They feel that it may be closely allied if not part of the antipernicious anemia factor. Its exact nature, however, awaits determination.

Prevention of Thrombosis

The artificial production of thrombi in the vascular channels of experimental animals can be accomplished by chemical or mechanical trauma and this means of investigation has led to an elucidation of the pathological and clinical effects of thrombus formation. How to prevent the appearance of a thrombus once the etiological factors for its development have become established also appears to have been solved according to the reports of Murray, Jacques, Perret, and Best¹ and of Solandt and Best.² The former showed that thrombosis of the peripheral veins in dogs which had been subjected to trauma could, in a large measure be prevented by the injection of a highly purified

heparin solution. Heparin is an anticoagulant and, when administered, increases to a considerable degree, the coagulation time of the blood. Widstrom and Wilander³ found as a result of their work on experimental pleuresy that heparin tends to prevent the formation of fibrin in pleural exudates.

Solandt and Best, in a series of experiments on dogs, found that thrombosis of the coronary artery could be established by the injection of sodium ricinoleate into the lumen of the vessel and allowing it to remain in contact with the endothelial lining for approximately ten minutes. A complete occlusion of the vessel would occur within twenty hours. Where heparin was administered prior to the injection of sodium ricinoleate, the thrombus formation was inhibited or prevented. They did not determine the duration of the heparin therapy required to secure healing of the intima but Murray et al demonstrated this to be approximately seventy-two hours.

From this it appears that a potent solution of heparin will prevent thrombosis in experimental animals. In addition, it can be safely administered to humans. Nevertheless, clinical and experimental conditions are, in the instance of coronary thrombosis, not comparable. Besides the almost complete absence of premonitory signs and symptoms in the human which would perhaps suggest preventive therapy with heparin, an extensive and widespread involvement of the coronary system is frequently present. The work, however, is intensely stimulating and will undoubtedly spur the concerted efforts of cardiologists and laboratory workers.

CURRENT COMMENT

AUSTRALIA IS HAVING "National Health Insurance Difficulties" according to the correspondent to the *J.A.M.A.* of July 16. We learn that "A deadlock has arisen between the medical profession in Australia and the federal government. Before the introduction

¹ Murray, D. W. G., Jacques, L. B., Perret, T. S., and Best, C. H. *Surgery*, 2: 163, 1937.
² Solandt, D. Y. and Best, C. H. *Lancet*, 2: 130, 1938.

³ Widstrom, G. and Wilander, O. *Acat Med Scand.*, 88: 434, 1936.

of the national health and pensions insurance bill, the executive of the federal council of the British Medical Association agreed to certain of the government's proposals in the bill including the acceptance of a capitation fee of 11 shillings per annum for all insured persons. It was made clear at the time, however, that the federal council could not bind its members by any agreement that had been reached and that, in any matter with such a wide scope as national insurance, members of the association throughout Australia ought to be consulted. The members have now made it clear that there is a great deal of opposition to some of the provisions of the bill and certain amendments have been suggested to the government. The government, on the other hand, refuses to alter its original plans.

"The main bone of contention concerns the amount of the capitation fee. It is considered by members of the medical profession that the 11 shilling fee is quite inadequate remuneration for a general practitioner in this country.

"It has been calculated that if the scheme was in operation an average practitioner's net income would approximate £665 per annum. This reckoning has taken into consideration all sections of the community and probable sources of income. This income is not high in a profession so costly to enter and in which hours are so unlimited. Co-operation between the government and the medical profession is essential if national insurance is to be successful.

"THE DOCTORS ARE CERTAINLY RIGHT in fearing that the lay public is too likely to regard medical service as a uniform commodity and to believe that all that is necessary is to speed up its production and distribute it more equally. There are intangi-

bles involved in the quality of treatment, and in the much talked-of doctor-patient relationship, that are not so foolish as they sound on the lips of some who use these phrases to obstruct all progress in the providing of a greater quantity of medical care.

These things, which many doctors feel in their bones, they are usually not able to state in scientific terms or in such a way as to show the layman what they really mean. Yet, on one front, the vanguard of the profession has begun to understand more precisely what is meant by the 'art of medicine'—namely, these psychiatrists who have been investigating so-called psychosomatic medicine.

'There is also an economic peril that will have to be carefully considered. Is any program of compulsory health insurance to be financed by payroll taxes or by uniform taxes on the individuals included, as are the present unemployed and old age benefits? The burden of payroll taxes on employer and worker is already heavy, and will become more so in successive years, without the addition of any more. This type of tax is not distributed according to ability to pay. It tends to increase costs to raise prices to reduce purchasing power and to decrease employment by putting marginal firms out of business. It is a powerful drag on any tendency there may be to produce abundance.

'The Health Conference did not and could not of course, consider even important details such as these. No legislation has been drafted. There is no doubt that the issue has come alive. It now remains to express the new determination in concrete measures. *It is to be hoped that they will be so drafted as to exclude costly and avoidable mistakes*—A lengthy quotation from George Soule's "The Government Fights for Health" to be found in *The New Republic* of August 3 (Italics ours).

TO TAKE THE "DIE" OUT OF DIABETES

A public announcement was made on May 1 by Dr. Charles F. Bolduan of the New York Health Department that Supreme Court Justice Alfred Frankenthaler signed the certificate incorporating the New York Diabetes Association, which is the opening gun in a renewed campaign by leading physicians and public health workers to aid the 75,000 diabetics in New York City of whom 2,500 died in 1937. The Diabetes Association was formerly a part of the New York Tuberculosis and Health Association. Offices are at 22 E. 40 St. New York City.

PHYSICAL THERAPY CONGRESS

The seventeenth annual scientific and clinical session of the American Congress of Physical Therapy will be held cooperatively with the twenty-second annual convention of the American Occupational Therapy Association September 12—at the Palmer House, Chicago. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—September 7-10. For information address The American Congress of Physical Therapy, 30 No. Michigan Ave. Chicago.

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Confidential Status of Hospital Medical Records

GRASSLANDS HOSPITAL
OF THE
DEPARTMENT OF HOSPITALS
VALHALLA, NEW YORK

To the Editor

In the December 15, 1937 issue of the New York State Journal of Medicine (Volume 37, Page 2125) in the section on "Hospital News," you were kind enough to quote extensively from a paper which the undersigned read before the 1937 Convention of the Hospital Association of New York State. The subject matter of the paper concerned the uncertainty of the legal status of hospital medical records. The present communication is offered somewhat as an addenda.

In the February 21, 1938, issue of *Health News*, the weekly bulletin issued by the State Department of Health, you will find a note concerning a recent decision by the Appellate Division of the State Supreme Court concerning hospital medical records. The citation is as follows:

Fannie Lorde, Appellant, vs The Guardian Life Insurance Company of America, Respondent. Law Reports, (N Y), No 1935, January 29, 1938, 647.

The portion of the decision quoted in *Health News* is as follows:

Interrogatories designed to elicit whether the deceased was treated professionally, the names of the physicians who treated him, the date of his entry in the hospital, and the date of his discharge, are proper. However, the questions which call for the production of hospital records for the obvious purpose of establishing the character of the disease or ailment for which the insured was being treated at the hospital, should have been stricken out. They are inadmissible because they are *privileged communications in the same sense as is the testimony of the physician himself* who made the diagnosis.

To the best of my knowledge, this particular decision was not carried up to the Court of Appeals for review and, therefore, cannot yet be regarded as establishing a final precedent in New York State. However, it is a long stride in the right direction. I believe it is of sufficient interest and value to physicians serving on the Medical Boards of hospitals and on Medical Records Commit-

tees thereof, to deserve your serious consideration for publication in your Journal.

Sincerely yours,
A. R. BOWLES, M D
Acting Director

June 18, 1938

A Little-Known Cause of Drowning

125 Eastern Parkway
Brooklyn

To the Editor

The July 15th issue of the State Journal carried an editorial with the heading, "A Little-Known Cause of Drowning." Included in the article was the generally accepted statement, "many cases of infections of the tympanic cavity and nasal accessory sinuses which result from swimming."

I quite agree with you that swimming and diving are potent factors in the production of sinusitis and middle ear disease. That has unfortunately been my personal experience and that of a good number of my patients.

For the past several years, I have used a nose-clip when swimming and now consider it indispensable. It is so simple a method of preventing trouble that I wonder why articles on the subject of sinusitis do not contain some reference to the device.

I bring this to your editorial attention and shall welcome your expressions on the matter.

Yours truly,
DAVID MEZZ, M D, D-OL

July 25, 1938

Greater New York Business Tax

THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER

Medical Society of State of N Y
New York, N Y

To the Editor of the State Journal

It has come to the attention of this department, in connection with inquiries received concerning the Gross Receipts Tax which was due June 15, 1938, that numerous physicians had no knowledge of the existence of such a tax prior to the notification which was sent to the members of your society as

a result of an earlier communication forwarded to you by this office.

You are now requested to cooperate further with this department by informing your members that the Gross Receipts Tax has been in effect since May 22, 1934 and applies to all fees received by physicians since January 1, 1933. Under prior laws a specific exemption of \$15,000.00 was extended to all persons subject to the Gross Receipts Tax. It is the opinion of this office that many doctors whose receipts exceeded \$15,000.00 per annum have failed to file the returns due. As penalties for delinquency increase from month to month you are asked to advise the members of your society to communicate with this office with a view towards filing the returns due under prior laws. Those physicians who will communicate with this department promptly will receive special consideration in the matter of accrued penalties.

Your kind cooperation will be appreciated.

Yours truly,

SAMUEL ORR
Special Deputy Comptroller

July 21, 1938

[See June 1 1938 issue for first communication, p 892—Editor]

Mesonexy

770 St. Marks Ave.
Brooklyn

To the Editor

Re Editorial Toxic Effects of Sodium Bicarbonate, June 15 1938 p. 934

The word "Mesonexy" is not in the edition of Dorland's Medical Dictionary or the New Century Dictionary. Please send me a definition of the word.

"Pleonexy" is defined in the dictionary but not the word "mesonexy."

Yours truly,

L. H. CONLY M.D.

June 27, 1938

[In the first place, usage establishes what eventually goes into dictionaries. "Mesonexy" is on its way into one. I wonder which one will accomplish the scoop!]

"Mesonexy" is a wrongly conceived word. Study of Greek roots gives—*neion* meaning plenty, *meion*, less, and *mesos*, meaning middle.

"Mesonexy" meaning less should have been *meionexy*. In Gould's Dictionary *mesectic* is given, but no noun is given. Nevertheless Latchford in his original article in the *Journal of the Canadian Medical Association* (38:356 1938), coined the word *mesonexy*—evidently forgetting his Greek roots.

The term *mesonexy* was also used in the abstract of the article, which appeared in the *J.A.M.A.* (110:1870, 1938).

In his book, *The Respiratory Function of the Blood*, University Press, 1914, Sir Joseph Barcroft states

it is necessary to explain the meaning of certain words to denote the changes we are about to describe.

If the curve of a particular person moves from its normal position, it may be either above or below the normal curve of that person. In other words, at a given oxygen pressure, the blood may take up either more or less oxygen than it is wont to. To express these facts, Mr Harrison Fellow of Trinity College, Cambridge, at the instance of Dr Fletcher, suggested the following nomenclature when the dissociation curve is above its normal situation—that is, when at a given pressure of oxygen the blood takes up an abnormally great percentage of its total possible load of oxygen, the curve is called "pleonectic." When, on the other hand it takes up less than the usual percentage of oxygen, it is "meionectic" when it becomes saturated to the normal extent under any specified conditions it is "mesectic."

In conclusion, there is precedent for its use by us. It is a wrongly constructed word. We do not want to reform English—nor anything else we want to convey an idea. Our editorial did this. We hope they always do—Editor]

Fever Therapy in Chorea

168 East 74th St.
New York City

To the Editor

We noted with interest your comment on Fever Therapy in Chorea in the July 1 issue of the *NEW YORK STATE JOURNAL OF MEDICINE* and wish to call your attention to a serious misquotation of our figures.

You state that "only 6.6% developed organic heart disease." This is not accurate. The total per cent of heart disease in the fifty-one treated cases observed from four-six years was 29.4% and in the untreated for the same observation period was 35%. The figures 6.6% and 46% refer to the percentage of those with organic heart disease who developed aortic lesions in the treated and untreated groups respectively.

The points brought out in our study were (1) A decreased incidence of polyarthritides in the treated compared to the course in the untreated (2) A lower incidence of heart disease in the treated group—the difference (29.4% compared to 35%) however is not great enough to be statistically important (3) A less advanced stage of heart disease in those who received fever therapy.

We think space should be given in the *JOURNAL* to correct the impression conveyed

in your editorial. Although we feel the results of our study justify a certain degree of hope, we consider it dangerous and completely unjustified to state as you did "To reduce to a minimum the incidence of organic cardiac disease may soon be achieved by the more universal use of fever therapy."

LUCY PORTER SUTTON, M.D.
KATHERINE G. DODGE, M.D.

July 19, 1938

[We are glad to publish the corrected figures, in the matter of Fever Therapy in Chorea. Drs. Sutton and Dodge are too meticulous to allow editorial enthusiasm for a therapeutic measure to overstress results obtainable. Perhaps it was wishful writing that made us draw conclusions expressed in too optimistic terms. We thank the authors for setting the facts correctly before our readers.—*Editor*]

Public Health News

Requirements of New York City Premarital Examination Law

The premarital examination law, which went into effect July 1, requires a physician's examination, including serological test for syphilis, of all applicants for a marriage license not more than twenty days prior to the application.

No special blanks or forms are needed by the doctor to imitate the procedure.

The blood specimen is taken in the usual way and may be sent to either an approved private laboratory, or the Health Department laboratory. In filling out the slip which accompanies the blood specimen to the laboratory, great care should be taken to spell the name of the applicant exactly as it is to appear on the marriage license application, to state the correct address, and particularly to give the date the examination is made, in addition, the words "premarital" should be placed prominently on the slip.

The laboratory, whether Health Department or private laboratory, will return to the examining physician on completion of the tests two reports—one a confidential report with the results of the test thereon (small blank), and the other a statement that a test has been made (large blank).

The large blank consists of an upper and lower portion. The upper portion will be received by the physician, already filled in by the director of the laboratory, either Health Department or private, attesting to the fact that an examination of a blood specimen has been made of the applicant for marriage, but not stating the result.

The lower portion must be filled in by the examining physician. This portion also has a line for the full signature of the applicant. On completion of this portion of the blank, it is given to the applicant, who files it with the clerk issuing the marriage license.

DO NOT TEAR OR DETACH THIS "STATEMENT FROM LABORATORY AND PHYSICIAN"

The confidential report (small blank), giving the results of the serological examination, if made by a private laboratory, must be filed with the Bureau of Social Hygiene, Department of Health, 125 Worth Street, New York City. When the test is made by the Health Department laboratory, this is unnecessary, since a copy of the report is already on file.

Joseph Hyrtl (1810-1894), born in Hungary, was appointed at the age of twenty-six professor of anatomy in Prague and later became one of the beacons of the famous Vienna School. He earned wide renown by his vascular injection preparations and his anatomy textbooks. His lectures made him the most famous teacher of anatomy in his time. Zuckerkandl said of him "He spoke like Cicero and wrote like Heine."

A trembling candidate for the doctor's degree presented himself to Hyrtl for examination.

"Do you know the function of the spleen?" asked Hyrtl. "I really knew it, Professor, but forgot," muttered the bewildered student.

"Unhappy man," exclaimed Hyrtl, "you are the only man in the whole world who knew and you just had to forget it!"—*Medical Record*

Medical News

Broome County

A COMBINED MEETING of the Broome County Medical Society, the Binghamton Academy of Medicine, the E. J. Medical Society and the Binghamton Psychiatric society brought 150 physicians, surgeons, nurses and welfare workers to the Binghamton State Hospital on May 23.

Dr Nolan C. Lewis, director of New York State Psychiatric Institute and Hospital of New York City, spoke on "The Importance of Early Recognition of Mental Disorders in General Practice."

Cattaraugus County

MARKING THE OBSERVANCE of Child Health Week, a dinner meeting of the Cattaraugus County Council on Maternal and Child Health was held in Olean on May 3.

Principal speaker was Dr Albert D. Kaiser, associate professor of Pediatrics at the University of Rochester whose subject was "How to Attack the Unsolved Problem of Maternal and Child Health." Approximately seventy representatives of sixteen county medical and health organizations were present.

Chemung County

THE CHEMUNG COUNTY MEDICAL Society has asked the county supervisors to instruct county public nurses when conducting public clinics to refer children to family physicians for examination when parents are able to pay. Dr Robert W. Lawler, secretary also urged that a check be made with Community Chest agencies to ascertain ability of parents to pay for medical examinations.

Kings County

EVERY EXPECTANT MOTHER in Brooklyn, who cannot afford full medical attention during pregnancy, will soon receive complete service free of cost in the borough's forty-nine public and private hospitals under a plan worked out by the committee on maternal welfare of the Kings County Medical Society. It is announced by Dr Charles A. Gordon, chairman.

The program, announced by a posted notice in all Brooklyn hospitals is the result of a several years' survey of all deaths occurring during labor or pregnancy in Brooklyn.

The notices announce that obstetrical staff members in the hospitals will grant consultations whenever called upon, and will require a fee only when the attending physician proves the patient's ability to meet all or part of the expense. The consultations may be arranged through staff interns of the hospitals.

Physicians attending maternity cases will be required to call obstetrical experts from the hospital staffs as consultants in all cases where complications develop. Obstetrical operations will be performed by interns only under the supervision of a staff member of the hospital.

OUTSTANDING CONTRIBUTIONS in various fields of medical writing in the last five centuries have been obtained through exchange, gift and purchase by the library of the Kings County Medical Society. Dr Jacques C. Rushmore, directing librarian, and Charles Frankenberger, librarian, announce in their annual report.

Last year 16,570 readers used the library, an increase of nine per cent above 1936. A greater gain twelve per cent, was reported in the 64,511 books consulted. New publications added in 1937 totaled 871, four of which were written by members of the society. The amount of \$1,458 was spent on 310 other volumes purchased.

Current periodicals and serial publications on file were 1,562, split evenly between foreign and American sources. They came from forty-three States and Territories and fifty-eight foreign lands. The collection is believed to be unsurpassed with two exceptions, the surgeon general's in Washington and that of the New York Academy of Medicine.

Monroe County

THE ESTABLISHMENT of an annual prize of \$100 to be known as "The Cushing Prize for the History of Medicine" has been announced by the Library Committee of the University of Rochester School of Medicine and Dentistry.

The prize has been named in honor of Dr Harvey Cushing, noted surgeon of New Haven, Conn. in acknowledgment of his contributions to the history of medicine and of his interest in many departments of the School of Medicine and Dentistry at Rochester.

It will be awarded annually to that stu

dent in the Rochester medical school who submits the best essay on a topic connected with the history of medicine. The first recipient of the award, Miss Jean Captain, Montclair, N. J., wrote on "A History of the Classification of Human Blood Corpuscles."

DR WILLIAM W. PERCY was named to the newly created position of executive director of the Rochester Academy of Medicine and Dr. David B. Jewett was elected president at the annual meeting on May 5.

The new post in the Academy was created by the board of trustees, Dr. Albert D. Kaiser, retiring president, announced to coordinate the functions of the Academy, which will be expanded this year with a building program and moving into a new home.

Dr. Percy will take office for a year and serve without compensation. His tasks will include supervision of moving into the new Academy building, 1441 East Ave., where construction of an addition to the Lyon homestead will shortly get under way.

Dr. Warren Wooden was elected vice-president and Dr. John J. Finigan was elected secretary to succeed Dr. Harry D. Clough, who resigned after serving for 16 years. Dr. James M. Flynn was renamed treasurer.

New York County

PROFESSOR HOWARD W. HAGGARD of Yale University warned in an address on May 23 before the Medical Society of the County of New York at the New York Academy of Medicine that the medical profession "must either make the necessary adjustments to change or be swept aside." He said:

"Some aggressive lay groups stand ready to raid the medical field for its unapplied potentialities. With the natural reaction of newcomers to the field—unacquainted with its ramifications, but sensing its deficiencies—they assume that there is something basically wrong with the form of medical practice. Their first inclination is to remake the form of medicine. Today the doctor must take his choice—lead or be led."

Dr. James Alexander Miller, president of the New York Academy of Medicine and physician in charge of tuberculosis service at Bellevue Hospital, discussed "some unsolved problems in tuberculosis," emphasizing that our knowledge of the manner in which the disease develops and the mechanism of immunity against it are far from complete.

ON AN AVERAGE DAY in the Winter and

early Spring in New York City, 280,000 persons are disabled by illness, another 700,000 suffer from but are not disabled by a chronic disease, and 91,000 others have been affected permanently by congenital defect, previous illness or accident, it was reported on May 7 at a public meeting in the New York Academy of Medicine.

The figures were given by George St. J. Perrott, principal statistician of the United States Public Health Service, as the conclusions to be drawn from a national survey by the service of 2,000,000 persons in the country in 1935-36.

Rensselaer County

"PRESENT DAY METHODS IN THE Treatment of Cancer" were discussed by Dr. G. Allen Robinson, radium therapy authority, in an illustrated talk to members of the Rensselaer County Medical Society at The Hendrick Hudson in Troy on May 17.

Dr. Robinson stressed the importance of an early diagnosis, declaring that "there is no question that the medical profession fails in many instances to recognize cancer in its earliest stages, and dentists very often do not recognize incipient mouth cancer in patients who have no reason to contact their own physicians."

The meeting was the largest session of the medical society in a number of years, with approximately 150 doctors present from a radius of more than 100 miles. Physicians came from as far as New York City, Rutland, Vt., Amsterdam and Glens Falls. Dr. Edward Godfrey, state commissioner of health and a number of members of the council of the New York State Medical Society, were among those in attendance.

Schoharie County

THE SEMI-ANNUAL MEETING of the Schoharie County Medical Society was held in the Cobleskill central school on May 3.

Speakers were Dr. Roscoe C. Borst who spoke on "The Genesis and Management of Renal Calculi" and Dr. T. Wood Clarke on the topic of "Allergic Diseases."

During the business meeting, the present officers were re-nominated and will be elected next fall. The officers are Dr. Carolyn L. Olendorf, president, Dr. Lyman Driesbach, vice-president, Dr. Herbert L. Odell, secretary, Dr. L. R. Becker, treasurer, Dr. Joseph Duell, censor, and Dr. David W. Beard, delegate to the state medical society. It was also voted to entertain the Third District Branch in Cobleskill in September. This district comprises seven counties. Dr. Joseph Lawrence was present to arrange for the district meeting.

Hospital News

Improvements

THE DEPARTMENT OF HOSPITALS has filed plans in the Brooklyn Department of Housing and Buildings for a \$1,675,000 addition to Kings County Hospital. The new building will be used as a psychiatric pavilion and will house 353 patients.

Plans are in the final stages at the department for a \$2,750,000 clinic to be added to the Kings County group. These, with drafts for a new \$150,000 bakery building, will be submitted to the Building Department in the near future. The improvements have been approved by the Board of Estimate.

When the psychiatric building and clinic are completed in 1940 more than 1,000 beds will be made available, bringing the total number in the institution to about 4,200. Even this will not solve the overcrowding, it was explained at the Department of Hospitals.

INCLUDED IN THE NEW Federal building program in the Administration's 'spending lending bill' is a \$2,850,000 improvement in the Marine Hospital at Stapleton, Staten Island.

RICHMOND MEMORIAL HOSPITAL, Dreyfuss Foundation, Staten Island, is installing one of the newly perfected Rentschler-James bacteria killing lamps in its operating room. The lamp is being presented to the hospital by Mrs. Louis A. Dreyfuss of Grymes Hill, one of the institution's principal benefactors.

THE NEW \$100,000 CHILDREN'S ward at Bronx Hospital, Fulton Ave. and 169 st. New York City, was dedicated on May 12.

Agitation for a local hospital for Little Neck, Douglaston and other nearby communities is under way. At a luncheon-meeting of the Little Neck Chamber of Commerce, the project met with instant approval and indications are that efforts will be made by the organization to initiate a campaign for this purpose.

THE WEST SIDE HOSPITAL AND Dispensary at 43rd St. between 9th and 10th Avenues, New York City, is raising funds for a new building.

GREENWICH HOSPITAL is contemplating an appeal for funds to modernize its plant and add a new wing. Hugh D. Marshall, president of the directors, said at a luncheon meeting in May: "We face the fact that we are not equipped to do the job the town expects. At the last meeting the board received from engineers well known in the work a survey, which was approved by the board. The board will ask an architect to draw plans on the findings of the engineers."

Newsy Notes

TRIBUTE IN THE FORM of a memorial tablet because he "served humanity and the Benedictine Hospital for thirty years" was paid the late Dr. Mark O'Meara on May 15 when a plaque was officially unveiled at the hospital in Kingston with appropriate ceremonies.

A TWO-CENTS-A DAY hospital plan for New York City employees will soon be launched if preliminary estimates are sustained by an extensive survey now being made. The proposed hospital insurance plan is expected to begin with a membership of the 50,000 employees who are members of the New York City Employees' Retirement System. It is planned to have it independent of any other insurance plan.

For two cents a day it is proposed to provide the same services now provided by the three-cents-a-day plan operated by the Associated Hospital Service, Inc. These services include hospitalization for thirty days, various laboratory diagnostic tests, x-rays, anesthesia and general nursing care.

The city plan would also pay member hospitals the same daily rate now paid by the Associated Hospital Service for subscribers hospitalized.

Across the Desk

One War is Ended—Another Begins

WE MAY BE PERFECTLY CERTAIN, as these lines are being read, that groups of shrewd men, here and there around our fair land, are busy sharpening their wits to try to find loopholes in the new Food Drug and Cosmetic Act that will let them continue to thimblery, bamboozle dupe dope and poison innocent sufferers and make millions out of it. Are these gentry going to reform and turn into plaster saints just because Congress has passed a law? Not unless human nature has had a total transmogrification.

True, the war for a new law has ended in victory after a five year fight, but it only means that another war now starts, to hold the gains. Our great War to End War turned out to have within itself the vicious seeds of more wars, and the law to end drug frauds really merely provides new and stronger weapons for the eternal conflict with the scalawags that we all know will never end till the trumpet call of doomsday. When that trumpet sounds it will interrupt some medicine faker blowing his own little horn for his pet pain killer. What his fate will be later when the various rewards and punishments are passed out may be left to the imagination.

Congress Was in No Hurry

What a comment it is on our boasted civilization that it should take five long years to hammer through Congress a law to mend the flagrant leaks in the old Food and Drug Act passed thirty two years ago. We seem strangely blind in some ways. Cheat a man out of his money and you see the inside of the lock up soon enough but cheat him out of his health and you may make a fortune. Cripple a man with an axe, and you go to the penitentiary but poison his vital organs with a vile nostrum and it takes our wise lawmakers five years to see anything especially heinous about it.

However they finally saw their duty and did it and they deserve a good word or a medal or a pat on the back or flowers or whatever is appropriate. Buckle in his famous "History of Civilization" said that every great reform was always resisted tooth

and nail by Parliament until it was forced through by popular demand over all opposition, and then the lawmaking body took all the credit, and was known as the 'great reform Parliament.' We seem to have here a rather similar case. What there is no doubt at all about, however, is the high credit that should go to our own Senator Royal S. Copeland who was the father of the new measure and led the long fight for it, and whose life work ended almost at the same time that it was enacted into law—a fitting monument to his labors.

Laws Go Swiftly Out of Date

Nothing stands still in this whirling world of ours. A law passed today does not fit the ways and manners of tomorrow. Good Dr. Wiley in 1906 could not foresee the tremendous changes in American life that were just over the horizon and could not frame his Food and Drug Act to fit them. In a few brief years the preparation of food was largely removed from the kitchen to the factory and the manufacture of much of the medicine was transferred from the pharmacy to the great laboratories of the pharmaceutical chemists. Women were set free from household drudgery and sallied forth in glistening motor cars to dine and dance at roadside inns and to spend chatty afternoons at the bridge table discussing their operations and their various organic eccentricities.

Quite naturally they gave more thought to their personal appearance and almost overnight the vast new cosmetic industry sprang into being. Dr. Wiley could not foreknow that and his law made no provision for it. He could not anticipate eyelash dyes that would cause blindness, or so-called slenderizers that would cause death. He could not foretell the shocking tragedy of last fall when an untried and untested elixir of sulfanilamide was put on the market and took a hundred lives before the consignments could be tracked down and seized. He could not sense the blatant and disgusting advertising of laxative and other nostrums over the radio that invades

every home and causes untold ill-health by urging ignorant self-medication

Old Mistakes Are Now Corrected

By some slip, too, Dr. Wiley's law barred false claims only on the label of the medicine-bottle or box, and failed to deal with misrepresentations in advertising, so that gullible victims could still be misled via the newspaper and the radio. This oversight is corrected in the Wheeler-Lea Act, approved on March 21 by the President, which puts unfair and deceptive acts and practices in the exploitation and sale of foods, drugs, diagnostic and therapeutic devices and cosmetics in interstate and foreign commerce under the jurisdiction of the Federal Trade Commission. It will no longer be possible to advertise an extract of a common weed as a cure for diabetes, or to advertise "electric belts" to bring the vigor of Hercules to the wan and debilitated.

Neither does the new Food and Drug Law contain the fraud joker that somehow slipped into the old law by which the Government had to prove that false claims of curative effect on the labels of patent medicines were made with wilful intent to deceive. Many a time a smart nostrum maker has walked out of the court room with a sardonic smile of triumph at the baffled prosecuting attorney who could not prove wilful deception. Every patent-medicine mixer has hundreds of "testimonials" from gullible victims who aver miraculous cures, and when he parades them before an ordinary jury they acquit him at once of any intent to deceive. This old dodge will work no longer. He must prove that his "cure" cures, or take his punishment.

Penalties Made the Victims Laugh

Punishments also sometimes used to be enough to make the victim laugh. Over and over again in the government reports of seizures under the old Food and Drug Law, the item would end by saying that the defendant failed to appear and the consignment was confiscated. What a punishment! Too bad! Now the hand of the law is to be heavier. Under the old law the maximum fine for the first offense was \$200, a mere

flea-bite for these pirates. Under the new act a first offense may now carry a fine of \$1,000, or one year in prison, or both. For later offenses the old law gave a maximum of \$300 fine or one year in prison, or both, whereas the new law gives a maximum of \$10,000 fine or three years in prison, or both. Even for first offenses, where the court finds fraud or deliberate intent to violate the act the maximum penalties now are \$10,000 fine, or three years in prison, or both.

The Vigilantes Are on Guard

Maybe these buccaneers will be sufficiently frightened by the teeth in the new law to turn their delicate attention to some other kind of knavery. The statistical sharps say that the losses due to crime, fraud and dishonesty of every sort run to something like \$13,000,000,000 a year in our land of liberty, so the nostrum fakers certainly have plenty of room in other directions for their peculiar talents.

And a large army is now on guard to support the new legislation. In the closing days of Congress it was found that the bill had a provision that would empower any district court to halt enforcement by injunction and no less than fourteen national organizations at once jumped into the fray and demanded that it be modified. It was done. A scrutiny of the list reveals that all, or nearly all, of the fourteen are women's organizations, and we may be certain that these wives, mothers, daughters, will not relax their vigilance over the workings of this measure so vital to the health of their families.

It might not be a bad idea for every member of the medical profession to secure a copy of the new Food and Drug Act and become a volunteer in this national posse of vigilantes. Every physician has patients who have been harmed by self-dosing with noxious patent compounds. Now we have a law that will get after the nostrum vendors like the saint who chased the snakes out of the world's greenest isle. Here is the opportunity of all opportunities to clean up a situation that has been a curse to the health of America.

Let's go!

Customer—"You made a mistake in that prescription I gave my mother-in-law. In stead of quinine you used strychnine."

Druggist—"You don't say! Then you owe me twenty cents more"—*Jour. Mich. State Med. Soc.*

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers

RECEIVED

Symptoms of Visceral Disease. A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine. By Francis M. Pottenger, M.D. Fifth edition. Octavo of 442 pages illustrated. St. Louis: The C. V. Mosby Company, 1938. Cloth \$5.00

Thoracic Surgery. A revised and abridged edition of Sauerbruch's *Die Chirurgie der Brustorgane*. By Ferdinand Sauerbruch and Laurence O'Shaughnessy. F.R.C.S. Quarto of 394 pages, illustrated. Baltimore: William Wood & Company, 1938. Cloth \$13.50

Histological Technique. For Normal Tissues, Morbid Changes and the Identification of Parasites. By H. M. Carleton, M.A. and E. H. Leach, M.A. Second edition. Octavo of 383 pages illustrated. New York: Oxford University Press, 1938. Cloth \$7.25

Massage and Remedial Exercises in Medical and Surgical Conditions. By Noel M. Tidy. Third edition. Octavo of 456 pages illustrated. Baltimore, William Wood and Company, 1937. Cloth \$5.25

Eat and Keep Fit. By Jacob Buckstein. M.D. Octavo of 128 pages. New York: Emerson Books, 1938. Cloth \$1.00

Sex Satisfaction and Happy Marriage. By the Reverend Alfred Henry Tyrer. Duo decimo of 160 pages. New York, Emerson Books, 1938. Cloth, \$2.00

A Practical Guide to Massage. By Irene Carpenter. Octavo of 127 pages. Baltimore, William Wood and Company, 1937. Cloth \$2.00

Pediatric Surgery. By Edward C. Brenner. M.D. Octavo of 843 pages illustrated. Philadelphia: Lea & Febiger, 1938. Cloth \$10.00

A Manual of Tuberculosis for Nurses and Public Health Workers. By E. Ashworth Underwood, M.D. Second edition. Duo decimo of 404 pages illustrated. Baltimore: William Wood and Company, 1938. Cloth \$3.25

A Text book of Pharmaceutics. By Arthur O. Bentley. Fourth edition. Octavo of 1001 pages illustrated. Baltimore: William Wood and Company, 1937. Cloth \$5.00

REVIEWED

Mentality and Homosexuality. By Samuel Kahn, B.S. Octavo of 249 pages. Boston, Meador Publishing Company, 1937. Cloth, \$3.00

The recent furore in the newspapers in regard to antisocial conduct by perverts makes this book a timely one. The author is well qualified to deal with this subject because of his past contacts with a large group of homosexuals who were incarcerated in a special division of the N. Y. Penitentiary for men and the Women's Workhouse and Correction Hospital for women. Homosexuality should be of interest to lawyers, criminologists, educators and doctors. They will find a great deal of interest in the book. Some of the facts brought out by the author have been known to the medical men but he has crystallized many loose strands to formulate concepts which will be of value to those who deal with homosexuals.

It is quite possible that the author's conclusions may not hold true entirely for homosexuals of a higher social strata, especially when we are told that so many of the homosexuals examined by the author were also drug addicts. However, one is heartily in agreement with him when he

emphasizes the fact that the vast majority of homosexuals have no desire to be treated medically. It is interesting to note that the most frequent occupations of the male homosexuals confined in the penitentiary are cooks, hospital orderlies, waiters, hotel bell boys and elevator operators. One who comes in contact with individuals in these occupations has often wondered about the behavior of these individuals even before Dr. Kahn has drawn attention to the frequency of the homosexuals amongst them. The case histories, legal interpretation of perversions and terms used by homosexuals has enhanced the value of the book.

JOSEPH L. ABRAMSON

Dextrose Therapy in Everyday Practice. A Survey of the Literature 1900-1936 on the Experimental and Clinical Studies Applicable to Medicine and Surgery. By E. Martin. Sc.D. Octavo of 451 pages illustrated. New York: Paul B. Hoeber Inc., 1937. Cloth \$3.00

The literature on dextrose in biochemistry, physiology and medicine is so enormous, that a complete monograph which summarizes and integrates all this material is

certainly welcome. In this review the author has compiled practically every important contribution in the past 35 years relating to dextrose. Early chapters are devoted to the chemical nature and physiological action of dextrose. Wherever contradictory experimental reports are presented, the author cites them, but refuses to take sides.

Beginning with the third chapter he enters into a detailed discussion of the use of dextrose in various diseased states. A large chapter is devoted to alimentary disturbances and includes the diarrheas, intestinal intoxication with dehydration, and acute and chronic liver damage. The author discusses the rational basis for dextrose therapy in liver disease, and presents the dispute regarding the indication for giving insulin in conjunction with dextrose. Other chapters are concerned with the use of dextrose in metabolic diseases, especially diabetes, its employment in allergic diseases, infections, cardiac disorders, pregnancy and in surgery. There is a small section on the use of 50% dextrose as a sclerosing reagent in the treatment of varicose veins. The closing chapter is devoted to methods of administration. Besides presenting the various enteral and parenteral methods, he also discusses absorption rates and therapeutic indications. A number of unnecessary drawings are included which depict the methods for administering the rectal drip, venoclysis and hypodermoclysis.

On the whole, it is a valuable book, for nothing of importance seems to have been omitted on the subject of dextrose in medicine.

WILLIAM S. COLLENS

The Collapse Therapy of Pulmonary Tuberculosis. By John Alexander, M.D. Quarto of 705 pages, illustrated. Springfield, Charles C. Thomas, 1937. Cloth, \$15.00.

Among the many books published on disease one occasionally arrives that is so conspicuous in its merits as to tower above all others. Such a book is this of Dr. Alexander's. Without question, it is the most complete, thorough-going, and exhaustive presentation of up-to-the-minute knowledge on the subject that has been given to us. It is truly encyclopaedic in its information,—encompassing within its pages everything of possible interest from the

historic to the latest factual contribution on the subject of collapse therapy. The fact that in its bibliography are included some 1432 references from current literature and books may serve as an index as to its far reaching completeness and authority.

Every phase of collapse therapy from pneumothorax to the more elaborate operation of thoracoplasty and its many variations are included in the text. It is all written with perfect lucidity, aided by numerous illustrations, diagrams, and X-ray reproductions which serve still further to clarify and simplify the exposition of each subject treated. The actual make-up of the book itself is a masterpiece in the art of bookmaking. Truly this is one book that no student or practitioner of tuberculosis can afford to be without, even though it be on a subject and in an age of constant shifting values and objectives.

FOSTER MURRAY

The Roentgenologist in Court. By Samuel W. Donaldson, M.D. Octavo of 230 pages. Springfield, Charles C. Thomas, 1937. Cloth, \$4.00.

Most physicians, in the practice of their art, give scant consideration to the many pitfalls before them. This book awakens one to the legal liabilities to which the physician may fall heir, discusses contract relationship, stresses the increased number of malpractice suits, and copiously quotes the decisions of the higher courts throughout the nation. Since the Roentgenologist is often called to testify, it behooves him to acquaint himself with the law and to study his behavior in court. The author tabulates twelve suggestions for the 'ordeal' of testifying, which if followed, will prove most helpful.

A chapter is devoted to the ownership of films. This moot question, which often arises in private and compensation cases, appears to have been quite definitely settled. They remain the property of the Roentgenologist, as the microscopic slide of the pathologist, or the temperature chart of the physician.

This book might well be read by the general practitioner in order to acquaint him with his legal responsibilities to society, and more especially by the radiologist who so often holds the pivotal point of knowledge for the jury.

MILTON G. WASCH

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THE MORTALITY OF ACUTE APPENDICITIS

An Analysis of 186 Surgical and 69 Nonsurgical Deaths

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From the Department of Surgery of the School of Medicine of Louisiana State University and
Charity Hospital of Louisiana in New Orleans

The recent literature of acute appendicitis is full of contradictions. It is the custom of many to say with a positiveness approaching complacency that the problem of acute appendicitis was solved in 1886 when Reginald Fitz of the Harvard Medical School identified the appendix as the site of the pathology in most diseases of the right iliac fossa and stated unequivocally that prompt operation was the only logical treatment for the condition. One of the most eminent surgeons in the country said last year at a meeting of one of the most distinguished surgical societies that "the tragic specter of septic appendicular peritonitis is fast retreating into the shadows of a grim past to be replaced by the smiling faces of countless convalescent aseptic appendectomized patients." That is a comforting picture if it is true, but is it?

It was in 1915, less than thirty years after Fitz's epochal work, that the outspoken John B. Murphy called attention to the fact that the combined statistics of United States hospitals still showed, according to the *Year Book of Surgery* that the mortality of acute appendicitis was something over ten per cent and proclaimed with the bluntness which was his wholesome custom

There is no palliative excuse for a mortality of 10 per cent in appendicitis. Is it time to stop talking about appendicitis? No! It is time to begin talking about ap-

pendicitis and talking most emphatically and seriously about it.

Well we are still talking about it, and there are those of us who believe that it would be well if we could recapture some of the vigor with which Murphy talked about it. Today just as in his day many competent surgeons, many well managed hospitals show a very small mortality for appendicitis negligible for the simple acute disease relatively low even for advanced disease. But that is not generally true. The mortality of acute appendicitis in 1936 according to Frederick L. Hoffman's recently released report is the lowest since 1918, in which year it was thirteen per 100,000. In 1936 it was 14.2 per 100,000, but in the interim between 1918 and 1936 it had reached the figure of eighteen per 100,000, in 1929 and again in 1930. The low figures for 1918 are sometimes explained as due to the absence of so many men from civil life during the War, but in 1910 when there was no such explanation the rate was 13.3 per 100,000. Why should the 1936 mortality rate be higher than the rate twenty-six years earlier?

For the last seven years we have been studying the surgical cases of acute appendicitis in the New Orleans Charity Hospital, and year in and year out the story is the same—an average mortality of about 5.5 per cent. The facile state

ment that that fixed mortality is due to the type of patient handled in a public institution is no explanation at all. The statistics (surgical) for eight public and private hospitals in New Orleans which were collected by the Longer Life Week Committee of the Orleans Parish Medical Society in 1936 show a mortality for the two preceding years of fifty-eight per thousand. Since the figures for Charity Hospital alone are lower, fifty-five per thousand, the charge that its statistics are overweighted is promptly disposed of. The sad truth is that when this particular disease is in question, variations in social status, financial comfort, native intelligence and acquired knowledge seem to lose many of their usual implications. Every physician knows that he is quite as likely to encounter procrastination and purgation, the two factors which chiefly maintain the death rate in acute appendicitis, in the upper social strata as in the lower.

During the seven-year period ending April 1, 1937, during which we were studying acute appendicitis in the New Orleans Charity Hospital, there were 186 surgical and sixty-nine nonsurgical deaths from this disease, a total of 255 deaths in seven years, an average of more than thirty-six per year. We propose to analyze those deaths from the standpoint of what they reveal in themselves, and for the most part without reference to the background of our more extensive analyses of all the cases of acute appendicitis handled at Charity Hospital during the period referred to. They carry, we believe, lessons which cannot and should not be ignored.

To persons familiar with the conditions which prevail at Charity Hospital, the racial distribution is significant. White patients make up the major portion of both groups, forty of the sixty-nine nonsurgical deaths (58%), 114 of the 186 surgical deaths (61%), or 154 of the total of 255 deaths (60%). But the mere statement of such proportions does not cover the situation. It must be remembered that although the negro and white admissions to Charity Hospital are approximately equal, the negro admissions for acute appendicitis average twenty-five to thirty against seventy to seventy-five white admissions. In other words, the

negro furnishes little more than a quarter of the incidence of acute appendicitis, but considerably more than a third of the mortality.

The explanation that the negro delays seeking medical consultation and aggravates his disease by purgation holds for the white race, too. The preponderance of white deaths in the nonsurgical group, in which a high proportion of moribund patients is included, suggests, if conclusions can be drawn from such superficial facts, that the negro, if anything, tends to seek aid rather more promptly than the white patient. Be that as it may, physicians and surgeons who deal with Southern negroes have long realized that acute appendicitis is a more serious disease in the black than in the white race, perhaps because the native immunity to it has been lost. Not all of them, however, have followed that fact to its logical conclusion, that there is even less excuse in this disease for delaying surgery in the negro than in the white patient.

We shall not discuss the matter of mortality according to sex, chiefly for the reason that no adequate explanation exists for the usually higher male incidence and mortality. The discrepancies in incidence and mortality at the various periods of life, however, cannot be passed over in silence. In the surgical group there were fifty-two deaths in children under thirteen years of age and forty-seven in the group above thirty-nine years of age, against eighty-seven in the middle years. In the nonsurgical group there were twenty-one deaths in children under twelve years of age and seventeen in the group above thirty-nine years of age, against thirty-one in the middle years. In other words, in the surgical group fifty-three per cent of the deaths occurred at the extremes of life, and in the nonsurgical group fifty-five per cent occurred during these periods.

Again it is necessary to go behind these figures to appreciate their significance. Our own studies, which are approximately corroborated by similar analyses, show that the incidence of acute appendicitis in children under twelve years of age is not quite twenty per cent of the total incidence, while the incidence in adults over thirty-nine years of age is less than ten per cent of the total inci-

dence. We have, therefore, the extraordinary circumstance that the periods of life which furnish less than a third of the total incidence furnish well over half of the total mortality. The conclusion is inescapable that appendicitis is for some reason a more sinister disease at the extremes of life than it is in the middle years and that delay during those age periods is even less excusable than it is at any other time. The problem of the negro may perhaps be a local problem, but surely the problem of age in acute appendicitis is a general one and it is disturbing to find so little attention paid to it in most of the studies which have come to our attention. We feel very strongly that a more general realization of its importance would go far to lower the death rate in the age groups which furnish so large a proportion of the fatal cases.

The combined figures for the surgical and nonsurgical groups show that only twenty-eight of these patients had been ill for twenty-four hours or less and only fifty-three others had been ill for forty-eight hours or less. Two thirds of the patients had been ill for longer periods of time. It seems almost unnecessary to comment on these figures. Some individuals by the Grace of God may exhibit less serious pathologic changes at the end of a week than others exhibit at the end of a day. Many times perhaps most times pathologic changes are in process before there is any clinical manifestation of their occurrence. But even granting these things the fact remains that in the vast majority of all cases the mortality of a disease rises as the duration advances. That is peculiarly true of acute appendicitis. The physician who stops to think knows that quite well. The trouble is that he does not always stop to think. That is clearly proven by certain other facts. In this group of deaths, in seventeen of the surgical and in seven of the nonsurgical cases in which definite statements were made on this point the patients were treated by physicians at whose doors must be laid the responsibility of the fatal delay. In a few cases the diagnosis does not seem to have been even suspected. In most cases it was either suspected or actually made and still delay was practiced. Those twenty-four cases furthermore are exclusive of

the cases we shall discuss shortly, in which further delay was practiced for one reason or another after the patient had been admitted to the hospital.

Associated with delay is another factor which is equally important. If we had the whole truth which we have not, the figures would undoubtedly be higher, but as it is they are damning enough. Using only the histories in which definite statements were made on this point, we find that ninety of the 186 surgical patients (48%) took purgatives, and forty-two of them repeated them. Thirty-six of the nonsurgical patients (52%) took purgatives and twenty-two of them repeated them. That is damning enough as we say but there is worse to follow. Seventeen of those purgatives were administered by physicians.¹ Delay in the management of acute appendicitis is a crime, but the addition of purgation to delay, as Haggard said in another connection, simply "compounds the felony." Ignorance is no excuse. Appendicitis is a disease in which the manifestations may be protean and entirely unsuggestive of the actual condition. No blame can be attached to the physician who does not always make the diagnosis. But surely he is deserving of the severest censure when he advises purgation for abdominal pain of whose origin he is not perfectly sure. That was the situation in most of these cases and it is a sad commentary upon the part played by the medical profession in the high death rate of acute appendicitis.

In the surgical group appendectomy alone was done in thirty cases, and perhaps a more radical procedure might have saved some lives. Appendectomy with drainage was done in twenty-nine other cases and with enterostomy in eighty-eight. Enterostomy was also done in three of the twenty-six operations for appendiceal abscess in which the appendix was not removed. The remaining thirteen cases included various miscellaneous procedures. About the operation of cecostomy which is frankly abused and is performed unnecessarily in many cases at least two things should be said.

1 It has undoubtedly saved many lives though rarely, as we have pointed out elsewhere, unless it is done as a prophylactic auxiliary procedure at the time of the original operation. It is of very much less value

ment that that fixed mortality is due to the type of patient handled in a public institution is no explanation at all. The statistics (surgical) for eight public and private hospitals in New Orleans which were collected by the Longer Life Week Committee of the Orleans Parish Medical Society in 1936 show a mortality for the two preceding years of fifty-eight per thousand. Since the figures for Charity Hospital alone are lower, fifty-five per thousand, the charge that its statistics are overweighted is promptly disposed of. The sad truth is that when this particular disease is in question, variations in social status, financial comfort, native intelligence and acquired knowledge seem to lose many of their usual implications. Every physician knows that he is quite as likely to encounter procrastination and purgation, the two factors which chiefly maintain the death rate in acute appendicitis, in the upper social strata as in the lower.

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On the other hand, certain criticisms may fairly be made. One has every right to question the propriety of conservative measures in young children (16 cases) and in adults advanced in years (6 cases). The surgeon who knows the pathology of acute appendicitis knows that in those age groups the tendency is toward spread rather than toward localization, and knows too, how poorly such subjects tolerate the toxemia which is one of the most important though one of the most generally ignored complications of advanced appendiceal disease. We ourselves are willing to debate the wisdom of conservative treatment in localizing appendicitis in the middle years, but in the extremes of life it is only in the exceptional case that we are willing to consider it, and even then we have the gravest misgivings as to the wisdom of our course.

We consider it at least open to debate whether conservative treatment is a wise plan in negroes (25 cases) in view of the apparently increased virulence with which acute appendicitis pursues its course in that race. We are also inclined to debate the wisdom of employing conservative treatment in any case in which a purgative has been taken (40 cases). The disastrous effects of purgation many authorities believe should be counteracted as far as possible by immediate operation in all cases, regardless of the time at which the patient is seen. Again we are unwilling to determine the wisdom of immediate surgical versus expectant treatment on the basis of the time element, but we do feel justified in saying that there is the gravest doubt as to the propriety of conservative treatment in disease seen as early as twenty-four or forty-eight hours after the onset of symptoms (20 cases).

On the other hand there is no gainsaying the fact that perhaps some of the patients in the surgical group would have had a better chance of life if surgery had been longer delayed. We refer particularly to the patients with appendiceal abscess, of whom there were twenty-six. Our complete studies show that the mortality for appendiceal abscess in Charity Hospital averages seven per cent, which is higher than is usually reported and perhaps our management of these cases is

not altogether wise. But the decision is not always easy. One of these deaths occurred in a negro male on our own service, who was admitted with a diagnosis of subsiding subacute appendicitis. Twelve hours after admission and the night before he was scheduled for operation, he had a violent exacerbation of symptoms entirely typical of rupture. Immediate operation revealed an appendiceal abscess, nothing in his first story, and nothing in a careful postoperative review of it gave the slightest clue to such an eventuality and there had been no physical signs to indicate it. He died in four days from a paralytic ileus and we had to face the fact that the operation had caused the fatality. Yet we do believe, given the same circumstances, that more patients will be saved by surgery than will be saved by abstinence from it. Even the most ardent advocates of conservative treatment grant that it must be carried out on the threshold of the operating room, across which the patient must immediately be wheeled if he does not respond to the proper measures. Again let us quote Murphy:

These patients did not die of operation—they died in spite of it. They died not so much because of any fault in technique as because of the fact that they did not reach the hospital in time for a successful operation. Procrastination was the cause of death—the almost criminal cause. The mode of onset of an attack of appendicitis is no clue to its probable course or complications. We can never tell in a given case what the next day may bring. Therefore operate today. By operation we take the course of the disease into our own hands. By not operating we leave the course in the hands of a blind and often terribly cruel fate.

Twenty-one of the patients in the surgical group had had previous attacks of appendicitis as had six patients in the nonsurgical group. We are entirely opposed to operation for so-called chronic appendicitis or recurrent appendicitis unless we have seen the patient during an attack or can secure a definite history of an attack. On the other hand we are becoming more and more convinced of the wisdom of prophylactic or interval appendectomy after a single such attack. The argument holds that the patient who has had previous attacks will be likely

when it is done later, then it is usually a procedure of desperation

2 The high mortality associated with it is no criterion of its worth but should be charged against the type of pathology, usually produced by delay and purgation, which gives rise to the necessity for its performance

In this connection, the figures collected by the 1936 Longer Life Week Committee of the Orleans Parish Medical Society are significant. When only simple appendectomy was done, they report, one person in every sixty-nine died, but when more complicated procedures were necessary, one in every six died. To look at it another way, when the disease was simple enough to permit only removal of the appendix, fourteen persons in every thousand died, against 166 per thousand when the stage of the disease necessitated a more complicated operation.

The question of surgical treatment naturally introduces the question of expectant treatment, perhaps the most disputed point in the whole problem of acute appendicitis. Opinions differ widely as to the indications for its employment, as well as its value. In one of the last medical meetings presided over by the late Lord Moynihan, who had occupied himself vigorously and helpfully with the question of acute appendicitis during his whole surgical life, the matter of immediate versus delayed surgery in acute appendicitis was debated, and the final result was a vote of fifty-four to forty-nine in favor of immediate operation in all cases. Rational therapeutics implies the individualization of every case treated, and one may question the worth of such a vote. On the other hand, if acute appendicitis is to be treated by rule of thumb, it is undoubtedly true that fewer lives will be lost by the general application of prompt surgery in every case than by the reverse of the plan.

The literature shows equally brilliant results reported by the proponents of both plans. Herrick, for instance, recently reported 217 cases of acute appendicitis with generalized peritonitis in which operation without any delay in every case produced a mortality of 1.84 per cent, which is to be compared with Guerry's classic mortality of 1.43 per cent for 139 similar cases treated expectantly. It often

takes more courage, Bancroft says, to refrain from operation than to operate, which may or may not be true. We have an unworthy suspicion that at least occasionally the surgeon refrains from operating for the benefit of his surgical mortality.

In the group of deaths we are studying, conclusions are rather difficult to arrive at. In twenty-five of the 186 surgical cases there was a more or less lengthy period of delay after admission and before operation. In some cases that delay was a part of deliberately planned conservative treatment, while the surgeon waited for the localization he hoped would occur. In other cases the delay was accidental, as it were, the condition was not immediately recognized as acute appendicitis though the surgeon was not necessarily to blame for the error, it would take more than second sight to have diagnosed some of the cases in question. In a small number of cases there seem to have been no settled convictions of any kind, surgery was simply not done and the patient was left to his own resources.

In the nonsurgical group of sixty-nine cases, twenty-eight can be eliminated at once. Mortifying as it is to relate in this advanced surgical day, all of those patients were admitted moribund and died within two to thirty-six hours. There was nothing to do but let them die. In seventeen of these cases, as well as in eleven others, the diagnosis was either incorrect or was not made at all and the true condition was established only by postmortem. In this group, again, the surgeon is not necessarily deserving of censure, there are limitations to human knowledge and ingenuity.

What is to be said, however of the sixty-two surgical and nonsurgical cases in which surgery was either deliberately delayed or never done? That expectant treatment was wisely chosen in all cases is too much to say, just as it is too much to say that all of these patients would have been saved if they had been operated on. That expectant treatment was properly applied in all cases is again too much to say, too often expectant treatment is interpreted as no treatment, a course of action most positively not intended by the original advocates of the method.

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Twenty-one of the patients in the surgical group had had previous attacks of appendicitis, as had six patients in the nonsurgical group. We are entirely opposed to operation for so-called chronic appendicitis or recurrent appendicitis unless we have seen the patient during an attack or can secure a definite history of an attack. On the other hand, we are becoming more and more convinced of the wisdom of prophylactic or interval appendectomy after a single such attack. The argument holds that the patient who has had previous attacks will be likely

to consult his physician without delay because he knows what is the matter with him. The reasoning also holds that he is just as likely to delay consulting his physician because he knows what is the matter with him and hopes that he may recover without surgery again, just as he did before. But any recurrent attack may fail to subside, and may go on to gangrene and rupture and peritonitis, as happened in these twenty-seven cases, in which the patients were either badly advised in their previous attacks or failed to take advantage of the warning.

Another point on which we have become very emphatic is the matter of prompt removal of the appendix in cases in which only incision and drainage was done in a previous acute attack. We like the way Collier and Potter speak of deferred surgery. They say that the principle of the postponed operation implies that operation is going to be done. It should be done, and without delay. We now have the records of twelve cases, five of them included in this series of fatalities, in which the disease recurred promptly, once within three weeks of the patient's discharge. The surgeon who has practiced conservative treatment, or simple incision and drainage, must not fail to warn the patient in very strong terms of the importance of prompt appendectomy.

A survey of the initial symptoms and the clinical course in this group of fatalities proves again the point that the classical picture of acute appendicitis fails to occur in a large proportion of cases, in our opinion well over fifty per cent. Such "unclassical" first symptoms were noted in this group as vomiting, diarrhea, headache, syncope, painful defecation, bilateral pain, left-sided pain (which remained left-sided throughout the illness in three patients), and acute gastroenteritis. In the latter group of patients, fourteen in all, there was every excuse for the error in diagnosis on the basis of the clinical picture. In four of these patients, one of them admitted moribund, the diagnosis was established only at postmortem. It would be well to bear in mind, before resorting to purgation in such cases, that a dietary indiscretion frequently precipitates an attack of acute appendicitis, or is

associated with it—it is not clear whether or not there is an etiological relationship—and to reflect that an unnecessary operation for presumed appendicitis may be more easily forgiven than a resort to catharsis, with perhaps fatal results.

Another evidence of the confused picture presented by acute appendicitis is evident from the various incorrect diagnoses made in both the surgical and non-surgical groups, most frequently in young children and in adults over thirty-nine years of age, in whom, as we have repeatedly pointed out, the disease tends to be atypical. They include ruptured peptic ulcer, primary peritonitis, tuberculous peritonitis, ovarian cyst, cardiac disease, renal disease, arachnoidism (a super-diagnostician could not have suspected appendicitis in that case), pneumonia, pelvic disease, bacillary dysentery, carcinoma of the stomach, carcinoma of the cecum, rheumatic heart disease, and ruptured typhoid ulcer. Often, as we have intimated, the error seemed unavoidable—in the light of human knowledge and skill. Sometimes the diagnosis of appendicitis was considered as a possibility, but the conviction was not always strong enough to prompt a resort to surgery. Sometimes the patient was given the benefit of the doubt, or operation was done on the diagnosis of another urgent condition. In still other cases the patients were moribund and operation could not even be considered, regardless of the diagnosis. Two patients hospitalized for long periods of time—one for pulmonary tuberculosis and the other for decompensated cardiac disease—developed acute appendicitis and died of it without any suspicion of the true state of affairs until postmortem. Those cases carry their own lesson.

It is unnecessary to linger over the causes of death in these 255 cases. Most of the patients died of peritonitis or the complications of peritonitis. One or two died from such accidental complications as cerebral hemorrhage or brain tumor, in the latter case the existence of the tumor was known and the patient was being prepared for operation when the acute abdominal condition developed. Cardiac and renal complications accounted for several deaths late in life. Two patients died anesthetic deaths and another died

of meningitis, spinal analgesia being employed in all three cases. In the five patients who died of subphrenic space infections the condition was presumptive in one and revealed only at operation in four, which bears out the point we have made several times that this complication tends to be diagnosed when it does not exist and remains undiagnosed when it does. The important consideration, however, is that, regardless of the actual cause of death, all these patients died because they had acute appendicitis. In a few instances, if we may so express it they died cured of that disease, but with very few exceptions they died of appendicitis or its complications, and we gain nothing by not facing that fact frankly.

To persons impressed as we are with the urgency of acute appendicitis and with the importance of prompt surgery in any case in which the condition is even suspected, it is nothing short of astonishing to find so many not of our opinion. We wonder how Murphy would have felt about some of the present-day literature. It may be true, as a recent paper states that acute appendicitis which has not reached the stage of perforation—though we would remind our readers that that distinction is not always as clear as the surgeon sometimes thinks it is—is not as imperative and as urgent as hemorrhage, strangulated hernia or perforated ulcer. In another sense, of course it is not true, no man knows in this disease what a day or an hour may bring forth. But it is frankly astonishing to find modern surgeons stating that if the patient is admitted *after midnight* (italics ours) morphine should be given to rest the intestine—and mask the advance of symptoms, perhaps?—and operation deferred until morning. The advice is astonishing, and the reasons even more astonishing, that a sleepy operating crew does not function well, and an aseptic technic is thereby jeopardized. That seems to us almost too trivial an argument to waste paper upon, and an extremely dangerous one into the bargain. The authors report an excellent mortality, but we should hesitate to follow their plan, or to advise anybody else to follow it.

There is a rather general tendency to blame the young surgeon, and particularly

the surgical resident for the stationary mortality of acute appendicitis. We do not think that the accusation is wholly fair. Undoubtedly there is much poor surgery done in acute appendicitis but it is not all done by young men. There is no doubt that the young surgeon who operates promptly often compensates for his lack of experience by his appreciation of the urgency of the condition. And there is at least one charge we would bring against the older and more experienced men who are beginning again, we note, to write about acute appendicitis. The majority of them are inclined to write of the complications rather than of the primary disease and of the wisdom of that plan we are rather doubtful. In a study of the presentation of acute appendicitis in standard textbooks and systems which was made last year by members of my own department it was pointed out just as the Philadelphia Committee on Acute Appendicitis had pointed out that the symptoms of peritonitis were likely to be presented as the symptoms of appendicitis. We note a rather general tendency of the same sort in material now appearing in the journals. Of course every writer begins with the statement that early recognition of the disease and prompt operation are important. Then he wanders far away from these considerations, easily the most important of all in the reduction of the mortality, and devotes himself to the management of the complications of acute appendicitis. A concerted endeavor on the part of older and presumably wiser members of the surgical profession to teach the necessity and advantages of prompt diagnosis and early operation in acute appendicitis might perhaps be more profitable than so much discussion of its complications.

Hoffman in his 1936 report has made two points which we desire to reiterate here. It would serve a useful purpose he says if the Division of Vital Statistics of the Census Office would differentiate deaths from chronic and from acute appendicitis. We have long believed that part of our complacency about acute appendicitis is due to the fact that statistics even from surprisingly good clinics and hospitals are so often made up on the basis of both types of cases. Such sta-

tistics are useless and misleading. The study made in our own department shows that many textbooks exhibit exactly the same tendency, and what the student begins by learning he is very likely to continue to practice when the responsibility becomes his alone.

It is something more than accident, Hoffman goes on to say, that if only the five largest cities in the United States be considered, the mortality is lower in Philadelphia (10.3 per 100,000) than in any other, for only in that city has a determined effort been made to keep it to more reasonable figures, particularly by a persistent campaign against the indiscriminate use of purgatives and laxatives. The resulting mortality, he says, is not a matter of chance but one of local policy. There have been such campaigns in other cities. There was one in New Orleans in 1936, and we personally know of at least three patients, one of them a negro woman, who because of that effort, refrained from purgation and sought medical advice promptly when acute appendi-

citis developed. But most cities have done what we did in New Orleans, conducted the campaign for a week or a month or a year, and then gone on to other matters.

That is not the way to reduce the mortality of acute appendicitis. All the statistics, Hoffman points out, indicate that acute appendicitis should be considered a public health problem of major importance. And he offers the solution of the problem. There should be a national organization for appendicitis prevention, corresponding to the tuberculosis and cancer movement, to visualize the facts of the situation for the instruction of the laity as well as of the medical profession. Only two facts are really supremely important—the danger of taking purgatives for abdominal pain, with or without medical advice, and the necessity for prompt surgery when acute appendicitis is diagnosed or when it is even suspected.

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FLORIDA'S NEW PLAN

The Florida Medical Association has a new plan to provide medical and surgical service for patients of varied financial status. As reported in the daily press, Dr. J. C. Vinson, chairman of the association's medical economics committee, said that the organization would establish a bureau to serve as a clearing house for classifying patients financially, and adjusting, budgeting and collecting fees.

A committee proposed the plan, Dr. Vinson said, after it found the public was not being adequately served.

One bureau is to be operated for a year as an experiment, the physician explained, and, if it proves successful, others will be opened throughout the State.

As explained by Dr. Vinson, the bureau will operate in this manner:

"A person in need of medical service goes

to the bureau and states his financial condition. The bureau determines how much he can pay and how best he can pay it.

"The patient and his family might be able to pay \$1 or \$10 a week or month, but his whole financial situation will be considered, and the bureau will fix his price and arrange his terms for a maximum period of twelve months.

"This will prevent a heavy, burdensome expense in emergencies and it will help the doctors by enabling patients to pay."

Dr. Vinson said that the patient would select his own physician to serve at the price and terms fixed by the bureau.

The plan, he added, "will eliminate the necessity of socialized medicine, permitting the patient to choose his own physician at a fair price."

BRONCHOPLEURAL CUTANEOUS FISTULA

Report of Two Cases Treated with a Pedicle Flap from Latissimus Dorsi Muscle

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The treatment of persistent bronchocutaneous fistula has been unsatisfactory when it has been associated with diseased parenchyma. When it can be ascertained that the infection of the acini is no longer present, the use of a muscle pedicled flap to cure a long standing bronchial fistula with noncollapsible rigid walls has found many advocates in recent years. The gratifying result obtained in the treatment of these patients when a pedicle flap of the latissimus dorsi muscle was used for closure of a chronic empyema cavity and bronchial pleural cutaneous fistulae prompted my recording their history and the operative procedure.

The employment of a muscle flap was suggested to the writer by Dr. Howard Lilienthal.¹ He referred me to the experimental and clinical studies with pedicle muscle flap by Pool and Garlock,² who in 1929 retained the base of the flap to assure the viability of the muscle. Their experiments demonstrated how the epithelium of the bronchus proliferated into the muscle. Garlock³ in 1936 recorded two cases with bronchopleural fistulae associated with chronic empyema that were treated successfully by using a flap from the pectoralis major muscle. Pool and Garlock subsequently learned that Abrahamoff, a Russian surgeon, in 1900 proposed suturing a pedicled muscle flap over a bronchial fistula. Abrahamoff⁴ in 1911 described the method he employed to insert the muscle flap. Eggers,⁵ reported before the American Society for Thoracic Surgery in 1920 six cases of bronchial fistulae and advocated suturing a muscle flap as an aid in closure. He also recommended using a drainage tube to act as a safety valve following this procedure. Eggers strongly urged against interference with a fistula if the intrapulmonary suppuration required the fistula to act as a safety valve. In 1921, Kanaval⁶ utilized muscle for the obliteration of cavities with noncollapsible walls

Wangenstein⁷ presented before the American Association for Thoracic Surgery in 1935 an exhaustive paper and cited the experience with seven cases treated by this procedure. He obtained successful results in all but one patient who had two separate bronchial fistulae. Wangenstein also described a method of preserving and employing the intercostal muscle bundles by a process of ribboning for the avoidance of abdominal hernia in the obliteration of large chronic empyema cavities. Shenstone,⁸ in 1936, proposed the use of intercostal muscle and reported having used it in several cases of bronchial fistulae successfully.

Case Reports

CASE 1. S. G. fifteen years old, was admitted to Beth Moses hospital on December 9, 1934. He had been sick since November 17 with a lobar pneumonia. The patient had a crisis on November 22 although the temperature remained normal until November 28.

Thereafter he had a daily rise in temperature from 99 to 103°F with pain in the right chest and difficulty in breathing. Aspiration of the right chest on admission revealed a thick yellow discharge which on culture was proved to be *Pneumococcus type I*. His white cell count was 46,000 and ninety four per cent polymorphonuclear leukocytes.

First operation. On December 9 drainage was established in the seventh intercostal space with local infiltration of one per cent novocain and a large quantity of thick yellowish purulent discharge evacuated. A flapper tube was inserted.

Postoperative course. Drainage was profuse for several days. The temperature declined to normal within three days with occasional fluctuations due to plugging of the tube necessitating frequent changing.

Radiographic examination. On January 16, 1935 a collapse of the right lung was revealed to the extent of fifty per cent with the heart and mediastinal contents displaced appreciably to the left. There was evidence

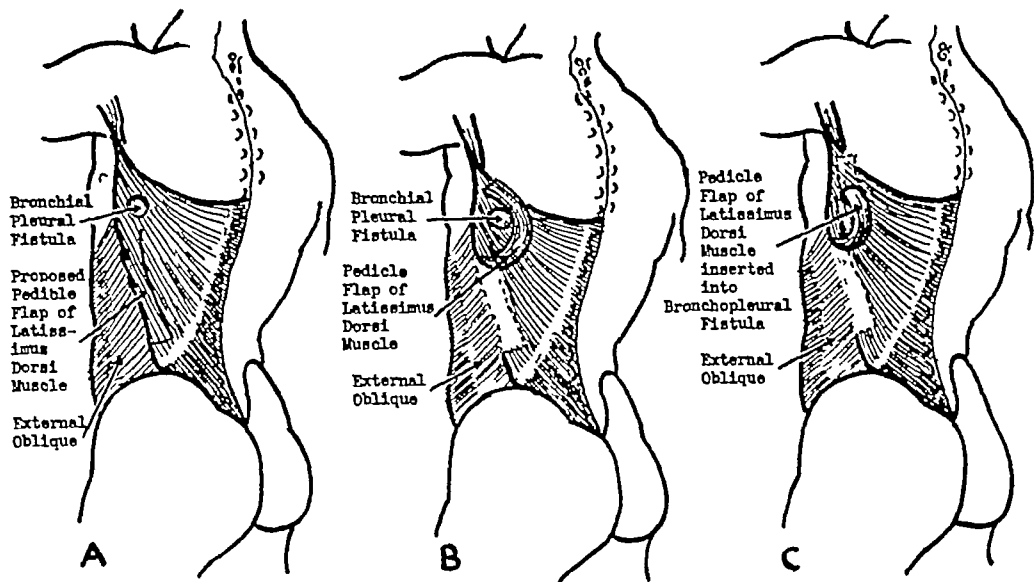


Fig 1-A Latissimus dorsi muscle pedicled flap outlined Fig 1-B Pedicle mobilized Diameter of the proximal fourth of pedicle should be at least one-quarter of its length to assure viability of pedicle. Fig 1-C Pedicle of muscle is inserted into empyema cavity and bronchial fistula Base of pedicle is sutured to lung and pleura Small rubber tube drain is inserted into fistulous opening as safety valve for a few days

of a fluid level which shifted on change of position in the right costophrenic sinus

On January 18, one inch of the eighth rib was resected and a large flapper tube inserted for drainage of the thick yellowish discharge

A *third operation* was performed on March 11, at which time a large flapper tube was again placed into the pleural cavity. Because of the persistently elevated temperature and ineffective drainage, three inches of the sixth, seventh, and eighth ribs were resected on March 20, and the pleural cavity packed with gauze. The gauze was replaced by two large rubber tubes on the fourth day. Thereafter there was a gradual improvement in the patient's condition and a diminution in the discharge from his chest.

During the next six months the patient gained fifty pounds in weight. He was readmitted to the hospital on October 8, January 27, 1936 and June 12, each time for a period of a few weeks. With each admission the patient gave a history that the tube had been removed and that the chest wound had closed. This was followed in a few days by a rise in temperature, fatigue, and a productive cough of offensive smelling sputum. The culture from the pus in the pleural cavity at the last two operations was reported as *Streptococcus hemolyticus*. On July 2 (1936), the patient was discharged to the clinic with a tube in his chest. This was changed at weekly intervals. With the tube in the pleural cavity the

patient had no chills, fever, cough or expectoration.

Lipiodol was injected into the chest through the sinus on October 28. The x-ray



Fig 2 Radiographic examination October 28, 1936 after lipiodol was injected through external fistulous opening. Lipiodol in cavity approximately two inches in diameter which has overflowed into left bronchial tree when patient was turned into left lateral horizontal position (Case 1)

revealed the presence of a cavity two inches in diameter, occupying the medial, posterior, central and lateral sections of the right lower lobe. Lipiodol had also entered the left bronchial tube when the patient was turned to the left horizontal position showing a communication of the cavity with the left bronchial tree (Fig 2)

The patient was readmitted approximately two years after the onset of his illness (October 28) for an operation to close his bronchopleural cutaneous fistula

On October 30, under cyclopropane anesthesia an elliptical incision eight inches long encircling the cutaneous fistula was made over the seventh intercostal space. A portion of the reformed ribs together with the calcareous fibrous pleura and three inches of the fistulous tract were excised.

The intercostal muscle directly above the fistulous opening was too small to adequately fill the large bronchopleural cavity therefore a large pedicle of latissimus dorsi muscle with an adequate base was mobilized and placed in the exposed cavity (Fig 1) The base of the muscle flap at its entrance into the chest wall was augmented with a flap of the intercostal muscle for an auxiliary blood supply. The muscles were sutured to the pleura and chest wall, a small rubber tube was inserted in the fistula alongside of the muscle as a safety valve for drainage. The skin was loosely sutured. Since the pulse was markedly accelerated during the operation, the patient was given 500 c.c. of blood by direct transfusion.

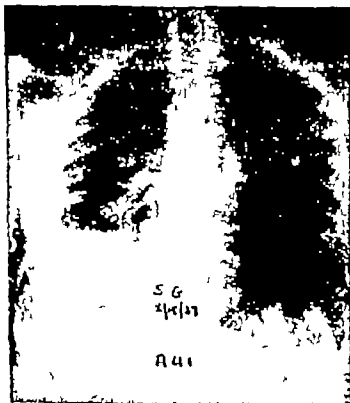


Fig 3 Eight months the operation for closure of bronchopleural-cutaneous fistula by pedicle flap of muscle. (Case 1)



Fig 4 Radiographic examination February 15 1937 after lipiodol intratracheal injection revealing distribution through bronchial tree and terminal acinae. (Case 1)

Postoperative course The temperature after the operation for six days varied between 102 and 105°F the pulse rate between 110 and 140 per minute. The respirations were never more than thirty. Curiously enough the patient did not cough during this period except on the fifth day, he expectorated once about $\frac{1}{2}$ ounce of pure blood. The dressings were saturated with foul purulent discharge for approximately ten days then gradually ceased. He was discharged from the hospital on December 1. The wound had been healed for one week. His appetite was good and he weighed 158 pounds.

Lipiodol intratracheal injection On February 15 1937 by Dr Robert Moorhead's injection revealed excellent distribution of contrast media through the bronchial tree of the right base. There was less clumping of the lipiodol. The contrast media passed through the bronchial tree and terminal acinae satisfactorily (Fig 3)

When last seen on June 6 1937, he was working as a grocery clerk. He no longer tires and has not contracted a cold since leaving the hospital, neither has he coughed nor expectorated. The wound has remained firmly healed (Fig 4)

CASE 2. M W forty-one years of age was admitted to Beth Moses hospital on February 17, 1937. His chief complaint was a discharging sinus from his chest wall for nineteen years.

In 1918 after an attack of lobar pneumonia, he developed an empyema on his left side. An intercostal drainage was instituted and drained intermittently for a year. He was then admitted to another hospital, where a rib was resected and a rubber tube reinserted. The patient continued to drain intermittently for twelve months. He was operated upon for a third time in another institution. From an examination of a recent x-ray it is evident that parts of the seventh, eighth, and ninth ribs had been resected. During the past nineteen years, the discharge from the chest ceased for only a period of two weeks. This period was accompanied by a rise in temperature, coughing, expectoration, and chilly sensations, followed by a spontaneous opening of the chest wound and profuse drainage of pus. Repeated examinations of his sputum for tubercle bacilli was reported as negative.

On February 12, Dr H L Teperson reported that the stereoscopic examination of the patient's chest revealed the following data:

The right field is considerably larger and better aerated than the left. Both hila, the left especially, are fairly large and contain considerable numbers of calcified glands. The left apex contains a cluster of calcified nodules. There is a diffuse infiltration along the linear markings in the lower half of the left field. The peripheral pleura in the lower half of the fields is considerably thickened. The left diaphragmatic cusp is elevated and adherent, and as observed roentgenoscopically, moves but little on respiration. The left seventh, eighth, and ninth ribs show evidence of previous resection. They also show irregular new bone formation as a result of subsequent attempts at healing. The visceral pleura is thickened in the region of the rib resection. The cardiac shadow is retracted to the left.

Conclusion These findings indicate the presence of a chronic pleural thickening both along the parietal and visceral layers on the left side, diaphragmatic adhesions, the presence of a healed Koch affection in the left apex, and a moderate atelectasis and peribronchial infiltration in the lower left field.

On February 17, further studies of the chest with lipiodol, were reported as follows:

The sinus in the left chest wall was injected with lipiodol. The patient was maintained first in the prone, and later in the lateral prone and Trendelenburg postures. The sinus connects by a small fistulous tract with dilated irregular "grape-like" spaces. These spaces ramify in three directions. The largest of them is situated posteriorly near the spine. The lipiodol trickled back into the secondary, primary, and main bronchus beyond the bifurcation. At this point, some of it spilled into the right bronchus and was deposited down the right bronchial tree. The left terminal bronchi at the alveoli are distended. Each of the latter show direct communication with some bronchus. Actually,

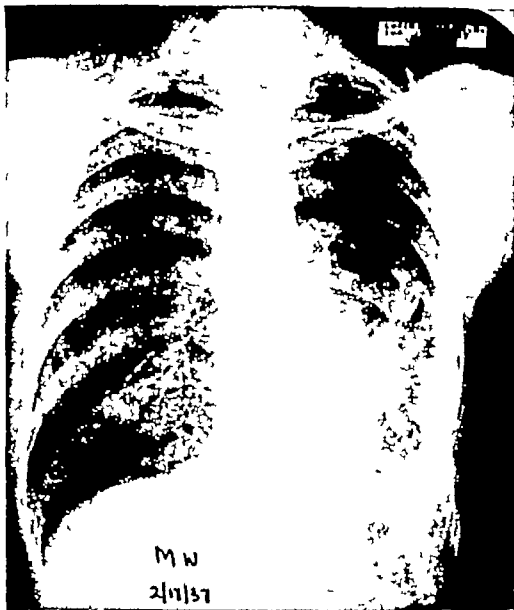


Fig 5 Sinus in left chest injected with lipiodol. After placing patient in Trendelenburg posture and on right side, lipiodol was deposited into right bronchial tree. (Case 2)

there is very little space between the outer and inner portions of the chest wall (Fig 5).

Conclusion There is a direct fistulous connection between the surface of the chest and left bronchus, with a bronchiectatic dilatation of the descending branches and alveoli in the left base.

On this day (February 17), the patient was admitted to the hospital for a plastic closure of his bronchopleural cutaneous fistula. On examination, he appeared drawn and tired readily following deep breathing exercises. There was a scar approximately seven inches long in the region of the seventh rib in the posterior axillary line. In the center of this scar there was a sinus from which a turbid, yellowish-green pus was draining.

On February 19, under cyclopropane anesthesia, the seven inch long old scar over the region of the seventh rib from the mid-axillary line to the scapular line was undermined to within one inch of the region of the fistulous opening. The densely thickened pleura about the fistulous tract was canalized, exposing the opening into the lung. The lateral and lower borders of the skin incision were undermined, exposing the latissimus dorsi muscle. A pedicle flap of this muscle, seven inches long and one and one-half inches wide, was reflected from below and inserted into the chest opening, well into the bronchus. Several interrupted chromic sutures were used to fix the muscle to the lung and pleura. A small rubber tube



Fig 6 Bronchopleural cutaneous fistula for nineteen years taken five months after operation for closure of fistula by pedicled muscle. (Case 2)

was inserted alongside of the muscle into the bronchus. The wound was then closed the intercostal muscles being approximated with chromic sutures and the skin with silk.

On the third day after the operation the patient expectorated some blood. At no time thereafter was there any sputum. The temperature remained elevated at 104°F and pulse above 130 until the seventh day. The discharge from the tube was profuse after the third day, and continued to drain for about two months the drainage gradually lessening in amount. For the past two months the wound has been healed. There has been no expectoration since the third day after the last operation. When last seen on July 20, 1937 five months after the muscle flap operation he appeared to be in excellent health. The patient has gained twenty three pounds and has re-

sumed his former occupation as a shipping clerk. (Fig 6)

Conclusion

Utilization of a pedicled muscle flap is a valuable expedient in the treatment of persistent bronchial cutaneous fistula and chronic empyema where the suppuration in the parenchyma of the lung no longer requires a cutaneous fistula to serve as a safety valve.

Its use in rigid noncollapsible cavities has been adequately demonstrated by numerous observers.

For large cavities the employment of a flap from the latissimus dorsi is recommended. The size of the muscle and its accessibility enhances its usefulness. A large broad flap permits intimate contact between the implanted muscle and the walls of the cavity and fistula. Contact will more readily enhance their union. The diameter of the proximal fourth of the pedicle should be at least one-quarter of its length to assure the viability of the pedicle.

Two cases of bronchopleural cutaneous fistula are reported one of twenty-two months and the other of nineteen years duration, both of which have been cured by the use of a pedicled flap from the latissimus dorsi muscle.

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RAILWAY SURGEONS TO MEET IN CHICAGO

The twenty third annual meeting of the American Association of Railway Surgeons will be held at the Palmer House, Chicago September 19 to 23.

An interesting and profitable program has been arranged and all physicians and surgeons are invited to attend as guests of the

organization. There will be no registration fee to M.D. non member guests.

Complete program and information may be secured by addressing Mr. A. G. Park, Convention Manager, the American Association of Railway Surgeons, Palmer House, Chicago.

RHEUMATOID ARTHRITIS

Treatment with the Sting of the Honeybee

EDITH E. NICHOLLS, M.D., *New York City*

From the New York Hospital and Department of Medicine, Cornell University Medical College

The treatment of rheumatoid arthritis with the sting of the honeybee has become increasingly popular during the past few years. Terc¹ in Austria in 1880 was the first to use bee stings therapeutically in his practice and it is still used quite extensively in Europe.

In this country Draper² reported favorable results following its use in 1920. Beck³ has used it in his practice for many years and believes it is a valuable adjunct in the treatment of rheumatic conditions.

In view of the excellent results obtained by the above mentioned investigators as well as many others it seemed worth-while to try this form of therapy on a group of patients with rheumatoid arthritis.

The present study is based on the treatment of twenty-seven patients with active rheumatoid arthritis with bee stings. Considerable care was taken to apply the treatment only to patients whose physical status was good except for the arthritic condition and whose joint disease was not sufficiently advanced to preclude hope of recovery. All patients were ambulatory and treated in the Arthritis Clinic of the New York Hospital. One patient had to assist herself with crutches and four used canes. The patients included in the study were divided into two groups.

One was comprised of twelve patients having a markedly active form of arthritis characterized chiefly by periarticular swelling of the joints, usually including fusiform swelling of the fingers.

The other consisted of fifteen patients who were similar to the first group except that the disease gave evidence of having involved the joint structure and in some instances there were contracture deformities and partial ankylosis.

It should be emphasized that all patients had previously received various forms of treatment without beneficial results. All but two had been subjected

to tonsillectomy, most of them several years before admission. All but five had had abscessed or suspicious teeth removed and seven had been treated for sinusitis. All had had various forms of physiotherapy and vaccine therapy.

Forms of treatment supplementary to the bee stings were limited to a minimum. An unrestricted diet high in vitamins was usually recommended. Acetylsalicylic acid was frequently prescribed for the relief of pain and patients advised to apply heat to the affected joints.

Of the twenty-seven patients studied, ten were males and seventeen females. The youngest patient was thirty years of age and the oldest sixty-eight. The duration of the arthritic symptoms ranged from nine months to thirty years. Improvement was judged by a fall in the corrected sedimentation index and an alleviation of the clinical symptoms.

Method

All of the stings were administered by the beekeeper*. The site selected depended on the location of the most painful joints. The skin was cleansed with alcohol and allowed to dry. The bee, held between the thumb and forefinger, was placed on the skin. Gentle pressure on the bee caused it to sting. The stinger was left in for about five minutes and was then carefully removed with forceps.

The initial dose was one bee sting. If no reaction followed the number was increased to three stings at the next visit. The treatments were continued at weekly intervals, increasing the number of stings at each visit. If a patient developed itching of the skin for several days or any general reaction the number of stings was decreased or the treatments discontinued.

The sedimentation test used in this

*The bees were kindly supplied and administered by Mr. Emil Grieder, Paterson, N. J.

TABLE I—TREATMENT OF 12 PATIENTS WITH MODERATELY SEVERE RHEUMATOID ARTHRITIS WITH BEE STINGS

Sex	Age	Duration	Bee sting therapy		Cor Sed Ind.*		Clinical results
			Duration	Number of stings	Before treatment	After treatment	
F	43	9 mos.	6 mos.	406	0.8	0.4	Marked improvement.
F	48	1 yr.	12 mos.	394	0.7	0.5	Marked improvement.
M	50	2 yrs.	13 mos.	373	1.2	0.7	Marked improvement.
M	45	1 yr.	6 mos.	692	1.6	1.2	Slight improvement.
F	49	2 yrs.	6 mos.	649	0.4	0.4	Slight improvement.
P	55	5 yrs.	12 mos.	429	0.5	0.6	No improvement.
P	34	3 yrs.	8 mos.	156	0.5	0.9	Became worse.
F	65	10 yrs.	3 mos.	142	0.4	0.5	Became worse.
M	43	2 yrs.	4 wks.	17	1.6	1.9	Severe general reaction.
P	30	3 yrs.	6 wks.	11	1.2	1.0	Severe local reaction.
M	33	2 yrs.	4 wks.	14	0.7		Severe local reaction.
F	44	30 yrs.	3 wks.	7	0.9		Disliked treatments.

This group suffered from pain, stiffness and periarticular swelling of the joints.

* Corrected sedimentation index.

study was that recommended by Rourke and Ernste⁶ and the figure indicating the sedimentation rate is known as the *corrected sedimentation index*. An index of 0.4 or less was considered normal.

Results

In Tables I and II, the patients who received bee sting treatments are listed together with the duration and severity of their arthritis, the number of bee stings and duration of treatment, the corrected sedimentation index before and after treatment and the results.

Three patients were markedly improved clinically and there was a drop toward normal in the corrected sedimentation index. These patients have remained well one year after discontinuing the treatments. The number of stings received were 406, 394 and 373 respectively over a period of from four to thirteen months.

Five patients felt slightly better and wished to continue the treatments but there was no improvement in the appearance of the joints and the corrected sedimentation index remained about the same. The number of bee stings ranged from 183 to 738 with an average of 546. The duration of treatment was from three to eighteen months.

Five failed to show any improvement although the treatments were continued for from eight to fourteen months and the number of bee stings varied from 429 to 1434 with an average of 747.

Seven became definitely worse while taking the bee stings. One patient became so acutely ill she was confined to bed for three months. These patients received from 53 to 555 bee stings over a period of from three to fourteen months.

Five were obliged to discontinue the bee stings after three to four weeks because of severe reactions. They all had

TABLE II—TREATMENT OF 15 PATIENTS WITH ADVANCED RHEUMATOID ARTHRITIS WITH BEE STINGS

Sex	Age	Duration	Bee sting therapy		Cor Sed Ind.*		Clinical results
			Duration	Number of stings	Before treatment	After treatment	
M	46	8 yrs.	18 mos.	738	1.7	1.6	Slight improvement.
F	33	5 yrs.	6 mos.	471	0.9	0.7	Slight improvement.
M	49	3 yrs.	3 mos.	183	1.5	1.5	Slight improvement.
M	44	3 yrs.	8 mos.	1434	1.1	0.9	No improvement.
P	46	1 yr.	13 mos.	844	0.5	0.3	No improvement.
P	35	5 yrs.	14 mos.	555	1.0	1.3	No improvement.
P	40	4 yrs.	11 mos.	453	0.7	0.6	No improvement.
M	58	5 yrs.	14 mos.	531	0.9	1.7	Became worse.
P	68	9 yrs.	4 yrs.	386	1.9	1.7	Became worse.
P	39	4 yrs.	6 mos.	105	1.0	1.1	Became worse.
M	44	9 yrs.	4 mos.	58	1.0	1.6	Became worse.
F	45	8 yrs.	3 mos.	53	2.0	2.1	Became worse.
P	38	6 yrs.	1 mos.	24	0.8		Severe general reaction.
M	40	1 yr.	3 wks.	7	1.4		Severe general reaction.
F	39	4 yrs.	2 wks.	5	1.5		Disliked treatments.

This group suffered from pain, swelling and deformity of one or more joints.

* Corrected sedimentation index.

marked local reactions with redness, swelling, and itching and three of the patients had general reactions consisting of chills, fever, vomiting, headache, and increased pain and swelling of the joints. These reactions occurred following two to three stings.

Two patients asked permission to discontinue the treatments as they found the bee stings very disagreeable. Most of the patients had mild reactions, either local or general, during the course of the bee sting treatments. Eleven had severe itching at the site of the stings for two or three days. The itching usually occurred a week or two after the stings were started and passed off in the fifth or sixth week. Four patients developed a maculopapular rash over the body, particularly on the arms and legs, after continuing the bee stings for four or five months. It cleared up rapidly on discontinuing the treatments. Seven patients had an increase in the joint pains the day following the stings and four experienced severe headaches. There were seven patients who said they felt definitely better for a few days following the treatments.

Discussion

Many articles have been published concerning the value of bee sting therapy in the treatment of rheumatoid arthritis. Investigators report an improvement in the physical condition of their patients and a sense of well-being. This seemed to be true with many of the patients in the present study especially during the first two or three months of treatment. However, it is difficult to say whether this was due to the actual treatments or to the dramatic nature of this form of therapy. The administration of the bee stings was rather spectacular. More or less pain was experienced with each sting and the patient became flushed and perspired freely. To receive twenty to fifty stings at one sitting was a trying ordeal. A certain amount of informality existed. The patients talked together, discussed their symptoms and the treatment, and were undoubtedly encouraged by the contact with each other. Individually the patients all heartily disliked the stings and only submitted to treatments because of a hope for recovery.

In the present study the results are very disappointing. Five (18%) of the twenty-seven patients treated had to discontinue the bee stings because of severe reactions. This percentage of sensitivity is much higher than is found with the various forms of foreign protein therapy. Twenty patients continued the bee sting treatments for from three to eighteen months and only three (15%) showed any definite improvement. Considering the general belief that seems to be prevalent especially among bee keepers that the sting of the honey bee is a cure for rheumatism, these results are rather surprising.

Summary and Conclusions

1 Twenty-seven patients with severe active rheumatoid arthritis were treated with the sting of the honeybee. Five had to discontinue treatments after a few weeks because of severe local or general reactions. Two stopped because they found the treatments very disagreeable. Twenty continued the bee stings for from three to eighteen months and received from 53 to 1434 stings. Three of the patients were markedly improved and had remained well one year later, five were slightly improved, five remained the same, and seven became very much worse.

2 Many of the patients had minor reactions during the course of treatments. Eleven had severe itching for a few weeks, four developed a maculopapular rash over the body, seven had an increase in the joint pains the day following the stings, and four experienced severe headache.

3 Bee sting therapy had no constant or noteworthy effect in the treatment of rheumatoid arthritis. The results were so discouraging that we felt we were not justified in continuing this form of treatment.

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ARTHRITIS

The Relationship of Dental Infection

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I shall confine my remarks to the relationship of dental foci of infection to arthritis. Numerous other foci of infection in the accessory nasal sinuses, the nasopharynx, the tonsils, the respiratory tract, the genitourinary tract, and the gastrointestinal tract will not be discussed in detail. It is my opinion that infection in the accessory nasal sinuses and in the genitourinary tract is more important in the etiology of arthritis than dental infection.

Since 1801 when Benjamin Rush reported the cure of a case of rheumatism of the hip by the removal of a tooth, the attention of dentists and physicians has been directed to the teeth as a possible cause of arthritis.

The entire subject of arthritis is in so confused and nebulous a state that even the classification of joint disease is still a moot point. I shall spend a few moments in reviewing Allison and Ghormley's¹ classification of joint inflammation. The first broad classification is into joint diseases of known origin and joint diseases of unknown origin. The joint diseases of known origin may again be subdivided into

1 *Traumatic arthritis*, as sprains, synovitis, loose bodies in the joint and injuries to the cartilages of the knee joint.

2 *Joint disease caused by a bacterial agent* as the (1) tubercle bacillus (2) gonococcus (3) pneumococcus, (4) typhoid bacillus (5) syphilis etc.

3 *Arthropathies secondary to trophic disturbances* as tabes dorsalis syringomyelia leprosy, etc.

4 *Constitutional disturbances* as (1) gout (2) hemophilia (3) anaphylactic reactions and (4) intermittent hydrarthrosis.

Thus far the classification has been fairly easy and obvious. We now come to the second large group the joint inflammations of uncertain origin, and these may be divided into (1) proliferative arthritis (2) degenerative arthritis, (3) unclassified arthritis.

The classification appears justified on

clinical and pathological grounds and furnishes a reasonable method of approach to the problem of treatment. The adjective 'proliferative' refers to the proliferation of the synovial membrane or lining of the joint and to increase in the connective-tissue elements of the bone marrow near the joint. It does not mean bony proliferation, which does not occur in this type of arthritis.

Proliferative Arthritis

Proliferative arthritis² has many synonyms which do not help to clarify this confusing subject. Among the commonly used synonyms are rheumatoid arthritis, atrophic arthritis, Type I arthritis, and chronic infectious arthritis. The term arthritis deformans is seldom used today. It was first used by Virchow and continued by Nichols and Richardson as the main diagnostic term to include both the proliferative and the degenerative form of arthritis.

Rheumatoid arthritis or proliferative arthritis usually occurs in the younger age group. In a series of twenty-five cases of severe rheumatoid arthritis at Montefiore Hospital, eight cases began before the age of twenty and one commenced as early as eleven years of age. Eleven cases began between the ages of twenty and thirty. Most authorities find that women are more frequently affected than men. In this small series there were fourteen women and eleven men. Rheumatoid arthritis is characterized by multiple joint involvement with progressive limitation of motion and final ankylosis in the severe cases. It may begin with a sudden febrile onset resembling rheumatic fever (which is an entirely distinct disease) or it may have a more subacute onset with alternating periods of quiet and activity. During the periods of activity there is usually a temperature rise and an increase in the sedimentation rate. The sedimentation test consists of measuring the rate of settling of the red blood

cells in a specimen of whole blood in which coagulation is prevented by the addition of an anticoagulant, such as sodium citrate. The red blood cells of patients suffering from some inflammatory process in the body settle more rapidly than the red blood cells of normal individuals, and the speed of sedimentation bears a direct relationship to the severity of the infection. If the time taken for the settling of red blood cells to the eighteen mm mark is less than sixty minutes, it is considered an indication of the existence of some abnormal process in the patient. The sedimentation rate is usually a more sensitive indicator of the extent of an inflammatory process than either the temperature or the leukocytosis. The small joints of the hands and feet are commonly involved and then the wrists, ankles, knees, and elbows. Less commonly involved are the hips, spine, and shoulders. Allison and Ghormley¹ have shown that rheumatoid arthritis or chronic infectious arthritis has a definite pathological picture which is not encountered in other forms of disease, the lesion consisting of peculiar clumps of lymphoid cells in the marrow near the joints and the synovial membrane. The characteristic x-ray picture in early cases merely shows diminished density of the bone with normal joint outlines and a swollen capsule with increased synovial fluid. In the later cases, bony ankylosis may be present.

Most authorities are of the opinion that infection by a bacterium or virus plays an important part in this disease. There is no agreement as to the nature of the organism and the exact role it plays. Zinsser believes that the disease is the result of a state of allergy in which the body is sensitized to a bacterial antigen probably from disintegration in an inflammatory focus of the organism concerned. Many investigators feel that the streptococcus is the causal organism, and there are many facts which bolster this belief. Billings,^{8,4} Rosenow,^{5,6} Poston,⁷ Cecil and his group of workers,^{8,9} and others have cultured a streptococcus from the blood or joints or lymph nodes, draining the joints in a high percentage of cases of rheumatoid arthritis. On the other hand, equally reliable investigators, such as Nye and Waxelbaum,¹⁰ Hench²

of the Mayo Clinic, and Dawson and Boots¹¹ failed to recover the streptococcus from cases of rheumatoid arthritis using the same technic as the men who were successful. This lack of uniformity in the bacteriological studies is ground for skepticism in definitely accepting the fact that the streptococcus is the causal agent of arthritis. Likewise the positive agglutination reactions against streptococci found by many workers in cases of rheumatoid arthritis are merely suggestive evidence and not proof that the streptococcus is the causal organism of chronic infectious arthritis or rheumatoid arthritis. It merely demonstrates the fact that at some time in the past the individual elaborated antibodies against an invading streptococcus.

Predisposing factors, such as mental fatigue, worry, endocrine dysfunction or a hereditary tendency, have been mentioned, but again there is no definite proof of their causal relationship.

Degenerative Arthritis

Let us consider the second great type of arthritis of unknown etiology—degenerative. This disease also has several synonyms, the most common of which are hypertrophic arthritis, osteoarthritis, and Type II arthritis. When the disease occurs in certain common locations, it is given a definite designation, the commonly observed thickenings about the distal interphalangeal joints of the fingers of old people, an example of this disease, are called Heberden's nodes. When the disease occurs in the hip joint which is one of its common locations, it is called *malum coxae senilis*, or hip disease of the aged. This disease is also a generalized disease with the most striking and obvious changes occurring in the joints. It is true that only one joint may be affected, but it is customary to have multiple joint involvement with maximum symptoms in one joint. Degenerative arthritis usually affects persons past middle life. The sexes are equally affected, and the onset is insidious and afebrile. Many people have x-ray changes diagnostic of this condition but do not complain of symptoms. The x-ray appearance shows enlargement of the joint spaces with increased fluid and

ipping of the joint margins. There may be loose osseous fragments in the joint, and there is usually marked limitation of motion. These cases seldom proceed to ankylosis in spite of the restricted motion. The blood cultures and joint cultures have been essentially negative even in the hands of observers who obtained positive cultures from cases of rheumatoid arthritis. The early pathological changes consist of fibrillation and splitting of the articular cartilage followed by its disappearance associated with lipping of the articular margins and eburnation of the bone. The synovial membrane is vascular but does not proliferate as in rheumatoid arthritis. The clinical and pathological picture does not suggest an infection. Most authorities feel but no definite proof has been furnished, that this is a process of degeneration, but the exact mechanism and etiology have not been determined. The trauma of daily life, the vascular changes secondary to senescence, and endocrine dysfunction have been mentioned as possible factors in this arthritis of old age.

Unclassified Arthritis

In the third group of arthritis of unknown origin, we have unclassified cases¹² that have x-ray, clinical, and pathological changes common to both rheumatoid arthritis and osteoarthritis, so-called mixed types."

If we confine ourselves to established facts in the etiology of arthritis of unknown origin, the only definite statement one can make is that the cause is still unknown but that the streptococcus is under suspicion as an etiological factor in the chronic infectious type.

Where in the body does one find the streptococcus? At this point we glibly catalog the list of possible foci that our clinic patients learn so well in their travels from department to department. Teeth, tonsils, sinuses, gall-bladder, intestinal tract, and genitourinary tract are the commonly considered possible foci. Certainly streptococci can be found in all these places, often pathological organisms that are causing local symptoms of inflammation. How far should one proceed in the eradication of foci that harbor the streptococcus? Arbuthnot Lane, the

famous English surgeon, was certainly unjustified when he advocated and actually did resect large portions of the colon to get rid of the hypothetical offending organisms. At the other extreme are those physicians who have become dissatisfied with the results of eradication of foci in arthritis and pay no attention even to obvious active inflammatory lesions.

I think that foci of infection should be removed, but one must choose cases carefully and cautiously. Many of the most ardent advocates of the streptococcal theory of etiology do not advise removal of foci in osteoarthritis, the degenerative joint disease of old age. Cecil¹³ states

In osteoarthritis the removal of focal infections should be undertaken only with the idea of protecting the patient's health and not with any hope of curing the degenerative process of the joint.

Certainly the removal of foci will have no effect on gouty deposits in the periarticular tissues of the big toe. Nor will extracting infected teeth or removing diseased tonsils cure an arthritis caused by a gonorrheal salpingitis. Pain in the back caused by the pressure of a ruptured intervertebral disk on the nerve roots will not be amenable to the removal of focal infections.

The point I am trying to make is to first attempt a careful diagnosis of the type of arthritis. If it falls into the group of cases with a known cause, the therapeutic attack is simplified. The differential diagnosis of arthritis is extremely difficult in some cases and often calls for extensive laboratory investigation. In other cases, the differential diagnosis is simple and can readily be made by clinical inspection.

It is in cases of rheumatoid arthritis or chronic infectious arthritis that the removal of foci assumes considerable importance. Some cases of infectious arthritis are mild and become stationary with little impairment of the joints; others are progressive and proceed to cripple the patient so that in two or three years he is a helpless bedridden chronic arthritic with multiple ankylosed joints. Certainly at this stage removal of foci will be of little help even if they had an etiological relationship, the joints have already been destroyed. At the onset of rheumatoid arthritis, there is no way of

predicting whether the case will be mild or whether it will proceed to completely cripple the patient. At the beginning of the illnesses in the twenty-five hopelessly crippled, bedridden arthritics whom I studied at Montefiore (New York City), the history merely suggested mild joint involvement, and the patients continued their daily routine for many months before they were aware of the true nature of the illness. Since we cannot differentiate the severe from the mild cases at the onset, let us be energetic in the treatment of early cases of infectious arthritis. The only chance for curative treatment is before the joint changes are severe.

The roots of the teeth have been proven to harbor streptococci. I think we must accept that fact even though the extraction of a tooth under sterile precautions and the culture of its roots is a procedure that is extremely difficult technically, and errors may creep in. Blayney,¹³ in a careful histopathological study, came to the conclusion that even when there are positive x-ray findings, the changes are not always of an inflammatory or degenerative nature associated with the death of the pulp and that the removal of such teeth can in no wise benefit the patient who suffers from chronic arthritis or other conditions. The bacteriological study of root ends wherein the inoculum is obtained after extraction is very misleading. For a reliable study the material must be gathered before the root is disturbed. Roentgenographic findings of root resorption in the absence of bony changes are not sufficient evidence to justify the extraction of the teeth so involved.

For mechanical reasons dental culture is much more difficult in molars than in the anterior teeth. Haden,¹⁴ chief of the medical division of the Cleveland Clinic, cultured 3,000 teeth. Because of the technical difficulties, he discarded the results of 1,500 molars and for statistical purposes, used the cultures obtained from 1,500 anterior teeth—incisors, cuspids, and bicuspid. For the purpose of study he divided them into vital teeth, pulpless teeth with negative x-ray findings, and pulpless teeth with positive radiographic findings. By vital teeth he meant teeth which responded to the electric current. In such teeth, the pulp functions, although

perhaps not normally. Teeth which show no response to electric stimuli have been classified as pulpless. These are certainly pulpless from the standpoint of function regardless of whether the pulp is still in position although dead or has been mechanically removed. Haden admits that there is necessarily much difference of opinion concerning just what should be called positive radiographic evidence of infection. There are also no statistics to show the frequency of chronic infections in vital pulps. It certainly occurs quite commonly, and many believe that there is a chronic infection in the pulp of every tooth in which the dentine is invaded by caries.

Four hundred cultures were made from the apices of vital teeth. It may be assumed, but remembered that it is merely an assumption that the apex of a healthy vital tooth is sterile, and positive cultures in this group indicate the chances of a technical error. Fifty-five per cent of the cultures were positive in broth, but only 14½ per cent were positive in agar. Haden used test tubes of glucose brain broth agar, and glucose brain broth. These mediums offer all gradations of oxygen tension. The brain substance renders the bottom of the tube anaerobic, while the top is aerobic, so every degree of oxygen tension between these two points is provided. The difference obtained in the two methods of culture, Haden explains by saying that a few organisms picked up during the extraction would be sufficient to give a positive broth culture but would be negative in agar. Certainly it proves that positive cultures in broth from pulpless teeth mean very little when fifty-five per cent of vital healthy teeth are positive. Of the positive agar cultures, about two-thirds showed less than ten colonies per tube. A bacteriological technic from which contamination cannot be positively ruled out is at best a relative not an absolute study. It is true that the large number of positive cultures from the apices of vital teeth show the maximum error, as some of the supposedly healthy teeth may have had infected pulp.

Five hundred radiographically positive pulpless teeth were cultured. 26.6 per cent were sterile in the agar tube, while 62.8 per cent had ten or more colonies per tube. Nine per cent were sterile in broth.

The next group is probably the most controversial—the pulpless teeth with negative radiographs. It is here that the greatest difference of opinion exists concerning the relationship to arthritis. Six hundred pulpless teeth with negative radiographs were cultured. 44.3 per cent were sterile in the agar shake tube, while 46.2 per cent showed ten colonies or more as opposed to 62.8 per cent in the radiographically positive group. In other words, if the presence of ten or more colonies in the agar shake tube is taken as a criterion seventy-four per cent of the radiographically negative pulpless teeth were as potentially infected as the radiographically positive pulpless teeth.

Rhodes and Dick¹⁶ in 1932 in a much smaller series of x-ray negative pulpless teeth, recovered the streptococcus *viridans* in each instance. In all but two teeth it was the predominating organism. The average bacteriological count was over 750,000 by their methods. Using the same technic they cultured fourteen vital teeth and the average bacterial count using the same methods was 1,786. They came to this conclusion that

It seems justifiable to regard all pulpless teeth as probable foci of infection whether or not they show apical changes by x ray. Certainly this position should be taken in systemic disease of the type usually associated with focal infection.

Haden next proceeded to determine the type of organism he obtained in his cultures of 1,500 teeth. Three hundred forty-six of the broth cultures were transferred to agar plates and 302 were found to be pure cultures usually of nonhemolytic streptococci. The nonhemolytic streptococci were usually green on blood agar, but not infrequently the colonies were gray. Only three times were hemolytic streptococci found twice in pure culture and once associated with a staphylococcus aureus. Forty-four times mixed cultures were present.

Solis-Cohen¹⁸ eminent Philadelphia clinician, states

Many physicians and dentists make the common mistake of taking for granted that germs present in or on the tissues are thereby infecting the patient.

Some regard the microbe that predominates in a culture as the etiological organism an inference which however valid in

acute infections, is unreliable in chronic and focal infections. Of 384 glucose brain cultures forty-four per cent were not pathogenic for the host. It has been shown that contaminating bacteria may overgrow the etiological germ and in consequence be the only ones to grow in a culture.

He uses the pathogen selective culture in the patient's whole, fresh coagulable blood. The organisms able to grow in the blood are those against which it lacks bacteriocidal power and which are believed of etiological significance. He also used controls of glucose brain broth. By this method streptococci were found less and staphylococci were found more than in other published studies. He also felt that dental infection was often secondary to foci in the nares or sinuses, tonsils, furuncles, etc. using the same pathogen selector method. Few dentists agree with him in this belief.

There is also no agreement among bacteriological^{17,18} studies in rheumatoid arthritis on the type of streptococcus found in the joints or blood or glands draining the joints. It is important to note at this point that recent work has indicated the possible passage of certain strains of streptococci into other strains under appropriate conditions of cultivation.

Cecil found the hemolytic streptococcus in a large percentage of cases. Burbank¹⁹ found the hemolytic streptococcus in approximately equal numbers with the non-hemolytic. Poston⁷ found the predominant organisms in glands removed from cases of rheumatoid arthritis to be the green streptococcus. Rosenow⁸ cultured lymph nodes that drained the affected joints and found a streptococcus that resembled the streptococcus *viridans*. In no instance was the growth hemolytic to human blood, but only a few, however produced green on agar plates. In this connection it should be mentioned again that competent bacteriologists have failed to grow any type of streptococcus in more than a small percentage of cases of rheumatoid arthritis. In two cases Dawson and Boots²¹ grew a streptococcus from the agar used in the culture medium when subjected to the same manipulations as the Cecil blood cultures. Li Gross²⁰ in this institution in 2,523 blood cul-

dence of five to fifteen per cent of streptococci in nonrheumatic conditions, such as leukemia, meningitis, and aplastic anemia Long, Olitsky, and Stewart²¹ found that streptococci appear in petri dishes exposed to air

I shall attempt to summarize these confused and contradictory findings We know that—

1 Rheumatoid arthritis or chronic infectious arthritis is a disease of unknown etiology

2 Most facts point to the infectious nature of the disease

3 The streptococcus is under strong suspicion as the etiological agent, but this point has not been proven

4 The bacteriological studies in rheumatoid arthritis do not agree as to the type of streptococcus

5 The streptococcus *viridans* is often found at the apices of teeth, most frequently and in the largest numbers in pulpless teeth that show x-ray evidence of inflammation at their roots, next most commonly in pulpless teeth that show no x-ray evidence of inflammation at their roots, and least commonly at the roots of supposedly healthy, vital teeth

What shall our dental policy be concerning the teeth in cases of rheumatoid arthritis or chronic infectious arthritis? Since we have no specific therapy, let us not discard any treatment that promises results However, we must not forget that rheumatoid arthritis is a disease with remissions and exacerbations, and if a remission follows extraction of dental foci, we must not be too sure of the causal relationship More suggestive of the causal relationship is the occasional flare-up of a chronic arthritis following the ex-

traction of an infected tooth Dental infection and other infected foci should be attacked early in the course of the disease, because no treatment will be effective in the later stages after the joints are hopelessly ankylosed Since one cannot tell at the beginning of an attack of infectious polyarthritis whether the disease will be mild or severe, I think all cases should be radically treated at the onset

Because the relationship between cause and effect is not proven, we should not be too radical or ruthless in dental extractions In spite of the experiments which prove that radiographically negative pulpless teeth harbor organisms in a large percentage of cases, I do not think radiographically normal pulpless teeth should be removed I do think that radiographically positive dental foci should be removed whether pulpless teeth or root fragments or partially erupted third molars, but we should not promise the patient too much The occasional miraculous cure that we hear about but seldom see, should not make us forget the hundreds of arthritics who have had all their teeth removed without any relief of symptoms As Dr Osgood²² stated in his report on arthritis last year

In our opinion advice as to the removal or non-removal of questionably causative foci of infection should be based on informed opinion as to the relation of these foci to the patient's general state of health Hope is an excellent virtue and quite worth while entertaining royally, but alas, as someone has said, "she frequently is so poor that disappointment often pays her debts"

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DIPHTHERIA

Susceptibility In a Well-Immunized Community

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The effect of widespread immunization against diphtheria has been clearly demonstrated in Auburn by a rapid decrease in the prevalence of this disease.

In 1921, there were 131 cases and thirteen deaths. In a school population of approximately 6000 there were as many as 500 children absent from school at one time, either with diphtheria or as contacts or as carriers. The townspeople became alarmed and were receptive to a vigorous campaign directed by Dr F W Sears and Dr Thomas Sawyer for immunization against diphtheria. In the spring and fall of 1922 and twice a year thereafter immunization clinics have been held in the public and parochial schools. During that year (1922) there were ninety-eight cases and thirteen deaths.

Since that time there has been a rapid decrease in case rate and death rate. The record for twenty-two years beginning in 1915 is shown in Table I.

In 1921, the year preceding the immunization campaign, there were as many cases and deaths as in the whole period of fourteen years following the first year of the preventive campaign.

From 1915 to 1922 inclusive, there was an average of 69.5 cases and ten deaths per year. From 1923 to 1936 inclusive the yearly average was 9.5 cases and one death, an average decrease of eighty six per cent in cases and ninety per cent in deaths.

If we take the first eleven years which includes the period during which the value of immunization was being demonstrated to the townspeople and compare this to the last eleven years there has been a ninety-four per cent decrease in cases per year and ninety five per cent decrease in deaths. Absence from school because of diphtheria became very rare.

However in the late fall of 1935, within one month three cases and a carrier were found in one section of the city. Two were children in one school. One of these a five year old girl, had received three prophylactic injections of toxin antitoxin in 1933 but had received

no follow up Schick test. The third case was in the mother of a child in the same school.

Fearing an outbreak of this disease, nose and throat cultures were made on the children in the rooms where cases occurred (first grade and kindergarten). A total of seventy two children were thus examined and surprisingly no carriers were found. To determine what happens to the carriers in a well-immunized community we reviewed the records of the Cayuga County Laboratory*. The names of all persons with positive cultures recorded during the period of 1929 to 1936 inclusive were obtained and in only two instances were we unable to trace contact with a case of known diphtheria.

Thus over a period of eight years in which 4625 throat cultures were taken with 197 (4.2 per cent) positive, only two carriers were found who were not known contacts with a preceding case of diphtheria. Although these figures from the County Laboratory include a few cultures taken outside of Auburn, the figures are almost exclusively those for Auburn in this eight years. One of the carriers had been in Auburn but a few weeks.

It should be noted too that these cultures were generally taken only when diphtheria was suspected and include all repeat cultures made upon known cases, contacts, and carriers. The positive throat cultures from the cases of diphtheria and contacts were cleared up with little difficulty.

All this suggests strongly to us that from a public health standpoint the term "contact" and "carrier" are almost synonymous. Although all contacts with a positive throat culture do not become carriers all carriers should be regarded as simple contacts until proved otherwise. A vigorous search should be made for a preceding case of diphtheria whenever a

* The assistance of Miss Alice O'Neil, Assistant Director is gratefully acknowledged.

positive throat culture is reported in a well-immunized community. This is borne out by Perkins¹ in describing a hospital epidemic of twenty cases and forty-seven carriers. He stated "With the exception of the first two cases, each case and carrier gave a history of a prior exposure to a previously recognized hospital case or carrier." However, Schick² reports that in the Philippines diphtheria

family were all negative (immunity). Nothing is known of the existence of diphtheria."

In 1934, there were over 500 throat cultures taken in the city of Auburn without a single positive culture. Positive cultures found in 1934 were all from cases in the county—none in the city.

The large increase in number of positive cultures in 1935 and 1936 was due to the three cases and carrier found in the fall of 1935. All positive cultures in 1935 and 1936 were from these cases or contacts of these cases.

The practice of performing the follow-up Schick test in the schools had been discontinued a few years before. When the three cases were reported, letters were sent to parents telling them about the existence of diphtheria in the school and advising them to have Schick tests on their children by their family physician, or sign a request for this to be performed by the school physician. In spite of the widespread belief that the parents were not interested in a follow-up Schick test, as many requests* were received as formerly when diphtheria was widespread in 1922. The New York State Schick test toxin was used and the reaction was read on the fourth day. A total of 370 Schick tests were performed in the school. Of this number 346 had received protective inoculations and twenty-four had not. Those inoculated prior to 1935 are shown in Table II.

Of the thirty-nine Schick positive reactors, there were six (13.3 per cent) who at one time or another had been Schick negative. An analysis of these is as follows:

Received Three Doses Post-Schick Negative
Toxin-antitoxin in in

2	1926	1927
2	1927	1928
2	1928	1929

There were twenty-seven inoculated in 1935, of which twenty-two (81.5 per cent) were Schick negative and five were positive. Of these five positive reactions, four had received the three doses of toxoid in May and were positive seven months later. One had received the alum precipitated toxoid in October.

* The assistance of Marie Smith, R N is gratefully acknowledged.

TABLE I

Year	Auburn		Throat cultures*	Positive	% Positive
	Cases	Deaths			
1915	55	6			
1916	39	7			
1917	47	9			
1918	42	7			
1919	54	6	536	145	25.4†
1920	90	19	1,958	526	26.8
1921	131	13	9,649	1,869	19.4
1922	98	13	7,649	1,284	16.2†
1923	43	7	3,389	824	24.3
1924	22	1	2,333	499	21.4
1925	18	0	1,246	200	16.1
1926	7	0	1,159	188	16.2
1927	10	0	1,666	395	23.8
1928	14	2	925	168	18.2
1929	2	0	474	25	5.3
1930	1	1	596	14	2.3
1931	2	1	615	19	3.1
1932	1	1	610	15	2.5
1933	1	0	590	33	5.6
1934	0	0	515	3	0.6
1935	3	0	735	63	8.6
1936	0	0	490	29	5.9

*Throat cultures are for all of Cayuga County. This includes Auburn (population 36,652) where practically all cultures were taken.

†Figures for last six months of 1919, otherwise for entire year.

‡Year in which immunization campaign was started.

TABLE II

Schick Positive			Schick Negative		
Yr Inoc.	No	%	Yr Inoc	No	%
1926	2	8.7	1926	21	91
1927	3	12	1927	22	88
1928	5	12	1928	44	88
1929	4	10.8	1929	33	89
1930	10	20	1930	40	80
1931	3	6.9	1931	40	93.1
1932	2	7.4	1932	25	92.6
1933	8	22.8	1933	27	77.2
1934	2	6.6	1934	28	93.4
Total	39	Av 11.8	Total	280	Av 88.2

carriers are numerous in the population—about four per cent (Gomez and Navarro)—in spite of the rarity of the disease. About seventy per cent of the children in the second year show positive Schick tests while only 6.3 per cent of the adults show positive tests. "In Brazil similar figures were observed concerning the Schick reaction. In Greenland, according to Steinbecker and Jones, all children under 12 years reacted positively to diphtheria toxin, the older members of the

There were twenty four who had received no preventive inoculations. Of these twenty one (87.5 per cent) were positive reactors and three (12.5 per cent) were negative reactors. Their ages were as follows:

Positive										Negative				
Ages in years										Age				
No										No				
5 6 8 9 10 11 12										9 10 12				
1 4 4 2 6 3 1										1 1 1				

Of those receiving the usual prophylactic dose, Dudley³ states that from five to ten per cent will fail to become Schick negative. Apparently these figures verify his statement. Some will also lose their immunity. In this group of Schick positive reactors there were at least six who at one time had been Schick negative. All the children with a positive Schick test were given a single dose of alum precipitated toxoid in January 1936. In May 1937 fifty-three of these were still in the school system and were given a follow up Schick test with heated control. Of thirty-two who had had preventive treatment previously, only one was positive. Of twenty-one who received preventive treatment for the first time in January 1936 four were positive.

In April 1938 in the tenth, eleventh and twelfth grades of a senior high school 220 pupils were given Schick tests. Of these 209 had received preventive injections and eleven had not. Two of these eleven had previously received a Schick test and both had been negative. In 1938, four were negative and seven were positive (including one of the two previously negative reactors).

Analysis of the 209 who had received preventive treatment is shown in Table III.

There were 128 who had been Schick tested before 1938. Of these 117 had been negative, and eleven positive. Following these tests, the eleven positive reactors had been given further preventive treatment. In 1938 three were still positive, and eight were negative.

Of the entire 209 who had at some time received some preventive injections 179 were negative and thirty were positive in 1938. Of these thirty positive reactors, there were seven whose courses of preventive injections had not been up to standard, and two of these had been Schick negative to a previous test. Thir-

teen had been previously negative and were positive in 1938. Among those negative in 1938 there were six who had received substandard courses of preventive treatment.

In the spring of 1936 sixty-nine Schick tests were performed upon student nurses and graduates, mostly residents of Auburn, at a local hospital. Forty-six were negative and twenty-three—or one in three—were found to be definitely positive. Of the nonimmune group, five had never been given preventive inoculations. However, eighteen had previously received toxin, antitoxin or toxoid at least a year previously, generally several years before. Only one was sure that she had

TABLE III

Year inoculated	Number studied in 1938	Schick tests before 1938		Receiving further treatment	Schick tests 1938		Analysis of 1938 Positive Schick tests		Receiving substandard treatment	Receiving previous treatment	Receiving substandard treatment	Receiving previous treatment	Receiving substandard treatment	Receiving previous treatment
		Total number	Negative		Negative	Positive	Negative	Positive						
1922	4	4	0	0	0	0	0	0	0	0	0	0	0	0
1923	20	20	14	0	0	0	16	4	0	0	0	0	0	0
1925	18	12	12	0	0	0	17	1	1	1	1	0	0	0
1926	43	29	13	0	0	0	38	5	2	2	2	0	0	0
1927	43	35	31	4	4	40	3	0	0	0	0	0	0	0
1928	34	23	22	1	1	23	3	0	0	0	0	0	0	0
1929	18	6	6	0	0	0	16	2	0	0	0	0	0	0
1930	12	2	2	0	0	0	10	2	0	0	0	0	0	0
1931	7	1	1	0	0	0	4	3	1	1	1	0	0	0
1932	6	0	0	0	0	0	4	1	1	1	1	0	0	0
1933	3	0	0	0	0	0	2	1	0	0	0	0	0	0
Total 209	128	117	11	11	179	30	7	13	6	6	6	6	6	6

had a negative Schick test since immunization. Of the Schick negative group only seven had never received any preventive treatment. Thus of a total of fifty-seven nurses who had been given preventive inoculations, mostly as small children, eighteen (almost thirty-two per cent) were Schick positive as young adults.

Two doses of fluid toxoid were given to each of the nurses with positive Schick tests in the spring of 1936. In the fall of 1937 nineteen of these were given Schick tests and five of them were still positive.

This suggests to us that the Schick reaction may become reversed unless there are carriers in a community or the preventive treatment is repeated at intervals.

The report of a hospital epidemic by Perkins¹ further bears this out. He reported twenty cases, eighteen in hospital

personnel Of these ten had had a previous negative Schick test

Dudley,³ referring to those who fail to become Schick negative, states that it is important to give more and more doses of prophylactic injections to these slow antitoxin formers until ultimately they become immune Among this group the worst cases of diphtheria are prone to arise Illustrative of the need of further dosage are the following case reports

1 Male, at the age of 1 $\frac{3}{4}$ years, received three doses of toxin-antitoxin during May 1926 He was post-Schicked in May 1927 and found 1+ given one dose of toxin-antitoxin a week later and again re-Schicked in May 1928, was again found to react 1+ He was then given another dose of toxin-antitoxin one week later In December 1928 the Schick test was negative and remained so by our test in December 1935

2 Male, at the age of fourteen months received three doses of toxin-antitoxin in May 1928 Schick test in May 1929 was found to be 1+ A week later he was given one dose of toxin-antitoxin and re-Schicked in November 1929 The reaction was then negative and remained so when tested in December 1935

3 Female, at the age of five years, was given three doses of toxin-antitoxin in December 1929 Schick test in December 1930 gave a 1+ reaction, given one dose of toxin-antitoxin one week later but was not re-Schicked She was a positive reactor in December 1935

4 Nurse, age thirty who had received two complete courses of three doses of toxin-antitoxin and had cared for eight cases of diphtheria at different times, receiving antitoxin while caring for each case, has been repeatedly and still is (March 1937) Schick positive

According to Dudley,³ as the incidence of diphtheria decreases, so will the incidence of those with a natural immunity and the more difficult it will be to build up an artificial immunity

As a result of this study, it is felt that if a community is to maintain a high per cent of immune reactors, the follow-up Schick test should not be abandoned Thus the group who do not become immune with the usual treatment can be immunized with further treatment A periodic test on those who previously were immune is justified in locating those who have lost their immunity.

Periodic Schick tests may be of value

in locating those who have never received the preventive inoculations This community has been and still is very diligent, through the efforts of various agencies, in promoting this work Yet in this group of 370 school children tested, twenty-four were found who had not been immunized

Summary

1 In a grade school where diphtheria had been found 370 Schick tests were performed Of 319 who had been given protective inoculations a year or more previously, 88.2 per cent were negative and 11.8 per cent were positive 13.3 per cent of the Schick positive group were at one time negative Twenty-four children had received no preventive inoculations Only 12.5 per cent of these were Schick negative

2 Schick tests were made on 220 pupils in a large high school 209 had received preventive treatment not less than five years previously Of these 179 were negative (85.6%) and thirty or 14.4 per cent positive 43.3 per cent of the Schick positive group had at one time been negative Eleven children had received no preventive treatment Four of these were negative

3 Sixty-nine nurses in a local hospital were given Schick tests and twenty-three—or one in three—were found to be positive Of the fifty-seven who had received toxoid or toxin-antitoxin generally as small children, eighteen or thirty-two per cent were Schick positive

Five remained positive after further preventive inoculations

4 Statistics of the above three groups show a higher percentage of Schick tests than the groups more recently immunized

5 The cooperation of the parents of the school children was easily obtained

6 In the schoolrooms where the diphtheria occurred, throat cultures on seventy-two children were all negative

7 An examination of the records at the Cayuga County Laboratory where all cultures are studied for Auburn and surrounding county, showed that over a period of eight years from 1929 to 1936 inclusive, in 4,625 throat cultures, only

two carriers who were not definite contacts were found

8. In 1934, over 500 throat cultures were taken in Auburn without finding a single positive culture.

Conclusions

1 Positive throat cultures for diphtheria are exceedingly rare in a well-immunized community except from actual cases or from contacts with active cases of diphtheria

2 Repeated Schick tests (probably once in seven years) and repeated preventive inoculations are essential for the most effective immunization of a community against diphtheria

6 WILLIAM ST
2 SOUTH ST
156 GENESEE ST

References

- 1 Perkins, J. E. N. Y. STATE JOUR MED 36 614 1936.
2. Schick, Bela *The Diseases of Children*, Pfaunder and Schlosmann (Peterman) J. B. Lippincott Co. Philadelphia, Vol 111 page 12 1935
- 3 Dudley S. F.: *Quart Jr Med* 1 213 1932.

DIAGNOSIS OF TYPHOID AND PARATYPHOID FEVERS

The clinical course of typhoid and paratyphoid fevers varies greatly. The symptoms may approximate those of other diseases such as influenza, undulant fever and tuberculosis. Furthermore a carrier of typhoid or paratyphoid bacilli cannot be detected by clinical observations alone. Thus, laboratory examinations of specimens are of great importance for confirmation of diagnosis in suspected cases and are necessary in the discovery and control of human sources of infection.

The etiological agents *B. typhosus* and *B. paratyphosus* A and B, are discharged in the feces and sometimes in the urine of persons having the disease and carriers. They may also be present in vomitus especially if this contains duodenal contents and in pathological discharges such as pus from suppurating lesions. The infections are communicable so long as the inciting microorganism is present.

When typhoid or paratyphoid fever is suspected, the physician is required by special state regulations to submit for examination to a laboratory approved for that purpose (1) ten c.c. of the patient's blood or if this is impracticable, from two to four drops of blood collected on a glass slide and allowed to dry (2) a specimen of fluid feces and, if there is evidence of localization in the genitourinary tract, a specimen of urine. During the first week of the disease the submission of blood for cultural tests is recommended. Specimens of feces must also be submitted before the patient is released.

Laboratory Aids in Diagnosis

I *The Agglutination Reaction* Agglutinative properties may not be demonstrated

in specimens of the patient's blood before the end of the first week of illness. During the next two weeks, serological tests may be very helpful, particularly if sufficient blood has been collected so that accurate dilutions of the serum can be made and the granular and floccular agglutinative properties can be studied.

II *Blood Cultures* The incitants may frequently be recovered from the blood stream during the first week of the disease. Their presence is, however, usually transitory though occasionally they may be found four or even five weeks after the onset of the illness.

III *Feces Duodenal Contents and Urine* Bacteriological study of the feces and urine is important to confirm definitely the diagnosis if *B. typhosus* or *B. paratyphosus* has not been isolated from the blood. For this purpose, fresh specimens are needed unless preservative is used (30 per cent glycerol in 0.6 per cent salt solution). Urine and particularly feces examinations are of special value in searching for carriers as their blood may not give significant agglutinative reactions. Since in most typhoid carriers the focus of infection is the gall-bladder examination of duodenal contents is often more helpful than that of feces.

Epidemiology

With the more adequate safeguarding of public water supplies the typhoid carrier has assumed greater importance. Undiscovered carriers who are food handlers or live in a district where adequate means for sewage disposal are not available, are a particular menace.—Issued by the New York State Association of Public Health Laboratories Leaflet No. 2.

ZIG-ZAG METHOD IN INSULIN THERAPY OF SCHIZOPHRENIA

RUTH M WILMANNS, M D and MAX HAYMAN, M D , *Sykesville, Md*

In the course of insulin therapy there have been several types of cases reported which presented considerable difficulty in management. These included cases in which coma was impossible to induce or required huge amounts of insulin, and those in which complications and accidents occurred. Such reports have influenced us to bring to attention a method recently outlined by Von Braunmuhl¹ which materially diminishes the difficulties.

The usual technic in insulin therapy as introduced by Manfred Sakel is a progressive increase in the amount of insulin until coma supervenes, then subsequent variations in the dose depending on the patient's reaction with the purpose of maintaining an appropriate coma. Should, however, a high dose be reached without the induction of coma, Von Braunmuhl has suggested the following procedure. The dose is abruptly reduced to a low amount and the subsequent doses are alternated between the low and high amounts until the patient manifests the symptoms of "shock." When this point is reached the amount of insulin may again gradually be increased until coma results.

Three principal variations of this method are used:

Type 1 Three day cycle

Type 2 Two day cycle with high-low doses

Type 3 Two day cycle with high-moderate doses

These types are illustrated in Table I but individual reactions may require modification at any time. Of these variations, Type I has been found the most satisfactory.

From the illustration, it is evident that

where the patient previously did not go into coma with 300 units, he now does so with a dose of only 150. We thus speak of the patient becoming more sensitive to the insulin, or "sensitized." Many investigators, notably Max Muller in Switzerland, have observed the fact that with a uniform dose the patient becomes more susceptible to the effect of the insulin, will go into a progressively deeper coma, and the interval between injection and coma will become progressively shorter. With the alternation of high and low amounts as described, this effect is considerably enhanced, and the patient's sensitivity to the insulin is increased.

In addition to its use in cases where coma is ordinarily impossible to obtain, this method may be employed where a relatively high dosage is required and it may readily be determined whether the patient will go into coma with a lower dose, i.e., whether his sensitivity to insulin has been increased in the course of therapy.

We see, therefore, that the method has a double function—as a sensitizing agent and as a test for sensitivity. A single cycle can be used at frequent intervals during the course of treatment and one may find that the amount of insulin used can be progressively decreased. In one case where this procedure was followed, a patient who at first required ninety units for coma, went into a pre-comatose state with five units.

Although no definite criterion can be given, the question of overdosage is of paramount importance. The interval between time of injection and onset of coma gives us some indication of the intensity of the reaction to the insulin, but the depth of coma cannot be accurately enough gauged to be of practical value. Accordingly, this zig-zag method is applied to avoid the possibility of overdose, and to induce coma with minimal amounts of insulin. In our own experience we have come to consider that overdose of insulin is the most important factor in the production of complications, and since

TABLE I

Type 1		Type 2		Type 3	
Insulin Units	Reaction	Insulin Units	Reaction	Insulin Units	Reaction
300	0	300	0	300	0
50	0	50	0	150	0
150	0	300	0	300	0
300	0	50	Partial	150	Partial
50	Partial	150	Coma	160	Coma
150	Coma				

utilizing this method we have had no after-shock, no collapse, nor coma from which the patient could not be aroused.

The amount of insulin required in our cases has been markedly decreased with no diminution in the therapeutic results. We have thus found this method of great value where coma does not occur with

the usual doses and as a precaution against dangerous incidents. Furthermore, the cost of treatment has been significantly reduced.

SPRINGFIELD STATE HOSPITAL

Reference

¹ v Braunmühl A. *Der Nervenarzt* 10 11 545
1937

UNUSUAL CASE OF RHINOPHYMA

J D WHITHAM M D, *New York City*

Rhinophyma is an exaggerated form of acne rosacea. It is best treated by surgical excision followed by application of trichloroacetic acid to the granulating area. The following case is from the Nasal Plastic Service of Bellevue hospital.

WC age sixty-five, was admitted November 22, 1934. Patient stated that he had had growths on nose and face since a youth. Since 1917 these growths have become much larger especially on the wings of his nose interfering with nasal breathing and eating.

Examination on admission showed a solid mass of flesh the size and shape of a small orange growing from each ala nasi. These masses were round and contained areas of ulceration from which exuded foul smelling sebaceous discharge. The entire forehead and cheeks showed the typical thickening of an acne rosacea of long standing. The patient could not eat without raising the masses with one hand. He stated that he had received several offers from circus side shows.

On December 1 under local anesthesia the masses were removed and a large part of the nasal hypertrophy excised. There was much bleeding which was rather difficult to control. No skin grafting was done.

The healing was slow but was complete after eight weeks. Exuberant granulations were treated by local caustic applications.

On March 21 1935 the partial atresia of the anterior nares was corrected by lateral cheek flaps using the method of Jalaquier (*Bull Soc de Chir Paris* p 891 1902).

The tissue sections showed a typical rhinophyma. X ray application and trichloroacetic acid to forehead and cheeks assisted in improving the final result.

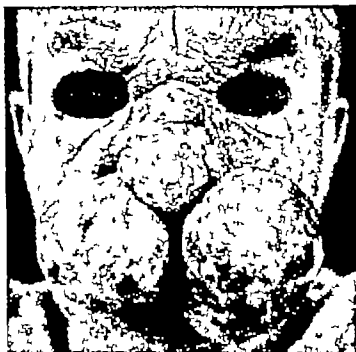


Fig 1



Fig 2

AGRANULOCYTOSIS

Following Administration of Arsphenamines and Bismuth— Report of Case

ALEXIS T MAYS, M D , Brooklyn

From the Medical Service of the Methodist Episcopal Hospital

In comparison with the great number of cases treated by arsphenamine and neoarsphenamine since its discovery, very few cases of agranulocytosis have been reported as a sequela to this treatment. In 1930 Farley¹ reported seven cases of depressed bone-marrow function following the use of arsphenamine including a type of agranulocytosis, over a period of seven years with three deaths. He collected thirty-nine cases from the literature with twenty-three deaths at that time. Since then forty-two cases have been recorded including 1936. Another case with recovery is herein presented with similar clinical data.

Case Report

A white male, married, aged forty-six, unemployed, entered hospital April 20, 1937 complaining of weakness, fever, and chills. Five days before, he became prostrated and perspired profusely, felt chilly and feverish. Temperature persisted between 103 and 104° F. Anorexia persisted with occasional nausea and vomiting. There was a cough but no expectoration, pain or sore throat. In May 1935 a three plus Wassermann was reported, followed by seventeen injections of arsphenamine (0.2 Gm.), fourteen injections of neoarsphenamine (0.3 Gm.), and fifty-one injections of bismuth salicylate. Between September and December 1936 another course of arsphenamine (0.2 Gm.) amounting to twelve additional injections was given. On January 12, 1937 jaundice developed, and on January 20 another 3 plus Wassermann was reported. Following the appearance of jaundice thirteen injections of sodium thiosulphate (1 Gm.) were administered without benefit. His condition gradually became worse and he was admitted to the hospital.

Past history included typhoid fever in 1917. Received a fracture of both wrists, and a questionable fracture of skull following an accident in 1931. Headaches have persisted ever since.

Examination revealed a moderately well-nourished patient with a diffuse pale icteroid tinge to skin and conjunctiva. Mind alert

but very prostrated, unable to speak above a whisper. No apparent pain. Temperature 104° F. Profuse generalized perspiration. Both pupils react to light and accommodation. Nasal mucosa reddened. Buccal mucous membrane and tonsils are reddened, but no exudate. Many teeth show decay with a slight gum edge infection. No metallic line. Thyroid not enlarged. One small posterior cervical gland palpable on left side. Heart not enlarged to percussion. Sounds normal and no murmurs, rate ninety-six with regular rhythm. Blood pressure, 108/68. An area of dullness over both lung bases, with many sibilant rales and a few fine rales heard anteriorly and posteriorly. Respiratory rate twenty-four. Abdomen not distended. No rigidity or tenderness. Liver enlarged two fingers, feels smooth in outline. Spleen not palpable. Genitalia show no abnormalities. Finger ends are moderately clubbed. No edema. K J's equal.

A provisional diagnosis on admission was bronchopneumonia and hepatitis. A few hours later a blood count showed 3,100 W B C with apparently all very immature cells, R B C 4,510,000, hemoglobin eighty-eight per cent. The blood examination, together with the history of recent intensive arsphenamine treatment, followed by jaundice, weakness, chills, and fever effected the diagnosis of acute agranulocytosis.

Progress

April 21 Temperature 105° F pulse 100, respirations thirty. Blood pressure, systolic 96, diastolic 48. Ictericoid color of skin and conjunctiva of same intensity. Tonsils markedly reddened. Liver palpable two fingers beneath costal margin. Spleen not felt. Blood count W B C 2,800, polys two per cent, lymphocytes (large and small) sixty-five per cent, metamyelocytes four per cent, myelocytes twenty-eight per cent, basophiles one per cent (peroxidase stain) R B C 4,730,000, Hb eighty-six per cent. Platelets 246,000. Blood chemistry, N P N 27 Mg, sugar 115 Mg, cholesterol 180 Mg, chlorides 436 Mg. Icteric index twenty. Sedimentation time twenty minutes. Urine cloudy, amber color, no albumin, no sugar. Microscopical examination negative. Chemical test for arsenic in urine negative.

X-ray of thorax showed no abnormalities of heart silhouette, lungs or diaphragm. An infusion of 500 c.c. of ten per cent glucose administered and ten c.c. of pentnucleotide given intramuscularly.

April 22 Temperature 104°, pulse 130, respiration twenty two. Blood pressure, systolic 96, diastolic 48. He complained of marked weakness. Skin very moist. Color pale with the same intensity of jaundice. Tonsils markedly reddened. Liver edge palpable two fingers. Blood count W.B.C. 2,850, polys thirty three per cent, lymphocytes sixty six per cent, basophiles one per cent (peroxidase stain) 500 c.c. of ten per cent glucose given by infusion, and ten c.c. of pentnucleotide administered.

April 23 Temperature 102°, pulse 100, respirations twenty two. More comfortable but complained of weakness. Perspiration much less. Icteric color about the same. Tonsils less reddened. Liver palpable two fingers below costal edge. Blood count W.B.C. 3,200 polys. sixty per cent, lymphocytes forty per cent (peroxidase stain) R.B.C. 4,490,000, Hb seventy-eight per cent. Urine clear, sp gr 1.010, no albumin or sugar. Kahn and Wassermann tests reported negative. 500 c.c. of ten per cent glucose, and ten c.c. of pentnucleotide administered.

April 24 Temperature 99°, pulse 70, respirations twenty four. Blood pressure, systolic 90, diastolic 48. No complaints. Able to eat a high carbohydrate diet. Throat and tonsils not reddened. A slight icteroid tinge to skin and conjunctiva. (Liver edge not noted) Blood count W.B.C., 3,750, polys. sixty three per cent, lymphocytes thirty-six per cent, basophiles one per cent (peroxidase

stain) R.B.C. 4,710,000 Hb eighty-one per cent. Pentnucleotide ten c.c. administered.

From April 25 to 28 temperature varied from 97 to 99°, pulse averaged eighty. Condition improved. Icteric color of conjunctiva faintly visible. (Liver not noted) W.B.C. increased during these three days from 7,750 to 8,400, polys. from sixty four to seventy-four per cent. R.B.C. from 4,760,000 to 4,870,000, and Hb from eighty-one to eighty six per cent. The last injection of pentnucleotide was given on April 25.

From April 29 to May 6 temperature, pulse, and respirations remained normal. He was allowed out of bed on May 4 and returned to his home two days later. A faint icteroid color to conjunctiva persisted. W.B.C. increased from 10,200 to 11,700 polys from sixty six to seventy-four per cent. R.B.C. increased to 4,850,000. Hb. varied from eighty two to eighty six per cent.

Summary

A case is reported of agranulocytosis following the administration of twenty-nine injections of arsphenamine, fourteen of neoarsphenamine, and fifty-one of bismuth salicylate during a period of twenty months. Recovery followed five injections of pentnucleotide, infusions of glucose, and a high carbohydrate diet.

36 PLAZA ST

Reference

1. Farley D J. *Amer Jour Med Sci* 179:214 1930

WRITE THE PRESCRIPTION

A slap at oral prescriptions is given by *The American Druggist* in 'An Open Letter to the Physicians of America.' It runs, in part

"Do you know that you and your associates in the medical profession are losing millions of dollars every year? And do you know that by losing this money you are jeopardizing the health of the American public?

"Of course you don't, or you wouldn't be doing it.

"Then how, you ask, am I losing so much money and how am I endangering my patients?

"Ask yourself! Do you issue oral instructions instead of writing prescriptions? There is the answer!

"Oral prescriptions are always unwise, sometimes dangerous. They not only instruct the

patient how to treat disease, but they also tempt him to take a fling at the art of diagnosing his own and his friends' ailments. No one knows better than the doctor what disasters are bound to follow in the wake of amateur diagnoses and bungling shot in the dark therapy. Even if a physician is called in later the patient's chances have been impaired because of the loss of precious time.

"Oral prescriptions are unwise for another reason. They curtail the doctor's legitimate income and make it difficult for him to earn the livelihood that he and his family are dependent upon.

"Write your prescription, doctor—even when you prescribe a well known trademarked compound. Written prescriptions insure accuracy tend to prevent the dangers of amateur diagnosis, and are economically just and wise.

Preventive Medicine

Syphilis, Science, and Society

J BAYARD CLARK, M D, *New York City*

Not until we had actually married Syphilis to Science were we able to introduce it to Society. It is now scarcely two years since open discussion of this disease made its debut in "polite circles" and since that time and because of it, a really immense advance has been made toward the control of this slippery enemy of human welfare.

The advance, of course, lies largely in the fact that the public now has an open mind on a subject previously held unfit even to mention. With this change of attitude, the practical work of syphilis control may now go forward where before it was held back by general sentiment.

A new responsibility, therefore, rests not only on the general practitioner, but upon those in every branch of medicine. The old and hidden, and for the most part unsuspected cases may now be sought out and given the benefit of treatment.

Today there is abundant evidence to sustain the belief that "many latent syphilitics are quite unaware of the disease. In fact, it has been estimated that about fifty per cent of the syphilitics are unaware of the infection."

During the war, while directing the genito-urinary service of the Base Hospital at Camp Logan, an experiment was conducted to gain some first hand knowledge of the percentage of syphilis among those who gave no history of the disease or showed no clinical evidence of it.

In the course of a routine Wassermann test done on each patient in the hospital and a few groups outside of it, it was found that 8.15 per cent gave a positive reaction. This percentage was drawn from a laboratory study of 3,704 cases and covered a period of five and a half months, and was exclusive of all clinically syphilitic cases.

It was recognized in the study that at times malaria, small pox, measles, scarlet fever, and even subjects seemingly in normal health appear to exhibit positive Wasser-

mann reactions. Less than one per cent were attributed to these causes in this series.

Because of the age factor (roughly 20-30 years) and because of a considerable number of negroes, it would not be fair to assume this percentage of positive Wassermanns to be an index of the unsuspected cases of syphilis in our population at large, but it does emphasize the fact (as does a number of other such studies) that out of our population of one hundred and thirty millions there must be some three to four millions who stand on the edge of the catastrophes awaiting those wholly innocent of any knowledge of their plight.

When we consider the potential danger of serious cardiac lesions, cerebral accidents, aneurisms, paresis, tabes, blindness, and insanity, to say nothing of the countless other conditions that partially disable unsuspecting victims of syphilis, it should be sufficient incentive for us to give every patient we see the advantage of a laboratory test. Indeed one need not hesitate now to make this test a routine procedure in practice, for a very large proportion of people already understand the wisdom of it. At the present time, in the writer's experience, many more people come in of their own volition specifically for a "blood test" than are referred for this purpose.

The answer to this is the increasing public appreciation of the possibilities of an unsuspected or concealed infection. It would indeed almost seem from this as if the education of the public was traveling faster than the education of the profession in respect to the importance of a serological investigation.

Among great life insurance companies, the Metropolitan has led the way to an annual routine blood test of some 15,000 home office employees. Many hospitals and many practitioners now have adopted the routine examination of the blood and consider it quite as important as a routine urine analysis—it may prove to be even

more important. New York State has just come into the fold with a law to make a serological test and physical examination compulsory before the issuance of a marriage license. Society, indeed, owes to these pioneers, in making a routine of the blood test, a great debt of gratitude.

With laboratory tests simplified and perfected, with our ability to check so closely the certainty of diagnosis with greatly improved methods of specific treatment, with the public's wholehearted approval of a campaign to wipe out this infection there would appear to be just one more important step toward the ultimate and complete elim-

ination of this disease—and that is the complete cooperation of the medical profession. We are really off to a splendid start in this grim race with the Spirochete pallida.

Let us see to it that we do not finish second.

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BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B. LIBER, M.D. D.R.P.H., New York City

Editorial Note. Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

The Spider and the Fly

One day I was called to see a patient whom the family could not bring to the office because he was raving. As I was unable to change my appointments they finally managed to come with him. He was not as "wild" as his father, mother, sister, brother, uncle, who were all accompanying him, assured me he had been for the last two days. They were astonished and alarmed as they had never seen him in such an excited and wavyward state before and because he had spoken such "nonsense."

What had he been saying?

Something that none of them understood. But they all agreed that it turned around one person as one name, Alf, was mentioned repeatedly. Phil, the patient, seemed to have been afraid of him and at the same time greatly respecting him. The details which he mentioned gave sufficient information to enable one to get in touch with Alf.

Here is the story as it came out after several talks with Phil and his friend as well as with each member of his family.

A bright and jovial and carefree boy of twenty had been studying brilliantly first in high school and later in a school for accountancy. He wanted a job any kind of a job and for that purpose had a few lines inserted in a newspaper. This brought one reply and when Phil reached his prospective employer he found a man of thirty-five who occupied a small apartment, alone and

whose manners, gestures and speech were strange and unlike anything our patient had ever witnessed before. After a while it became evident that here was an effeminate man, a man indeed, more woman-like than most women he had met. Phil came again and again. He and Alf saw a good deal of each other in every sense of these words. They spent days together in Alf's rooms, in restaurants, in parks, in theatres, walking and talking and reading.

Within a short time Phil was completely changed. He who had been normally interested in sports and games and girls, became serious and shy, avoiding his playmates and his old haunts.

That he had no congenital homosexual leanings could be seen not only from his former association with girls as known to his folks, but also through some of his letters—a passage from one being reproduced here.

"At the beginning there was nothing but a light touch. Then a zephyr-like petting. I still kept away from her face. But suddenly like a spark, something happened which brought us closer to heaven. The beautiful form near me caressed me with a real squeeze. I, so sensitive, so supersensitive, was deeply touched. A sweet melody came from somewhere and sang in my heart and droplets ran down slowly on my cheeks. They were tears of happiness. I

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EDITORIALS

Plain Speaking

In an article appearing recently in the *New York World-Telegram*, Westbrook Pegler dispels some of the deceptive sentimentality obscuring the real problems of medical care. As Mr Pegler says with his customary forthrightness, many pitying "oh's" and "ah's" are wasted on people "who have convinced themselves that they can't pay the doctor for easing their pains or saving their lives, but could do so if they tried."

There is unquestionably a real problem of medical care in connection with people who earn a mere subsistence wage or less. Much of the current hullabaloo however, centers about a class which can well afford to pay a reasonable price for medical service. Quoting Mr Pegler "If a patient can pay small amounts to a co-operative over a spell of years for treatment which he may need in the future, he can just as well pay a doctor a stated amount each week over a long term for treatment which he has already received. But in too many cases he just won't, and the doctor is accused of bearing down on a man who can't afford to pay for the saving of his life but can manage somehow to come up with the price of many non-essentials."

"Many doctors nowadays serve patients in the public clinics who are able to pay reasonable professional rates for their

treatment. In this way the doctor is compelled to rob his own family of the just rewards of his work so that other men's families may deadhead it. Patients lie about their income and pretend to be in tatters who ought to be told to decide which they value more, their money or their lives."

By some novel form of logic, the radical fringe has persuaded the public that it is an affront to the applicant for medical or other relief to subject him to investigation to determine whether he is really eligible for aid. It is altogether different when the citizens who foot the bill for such aid must submit to the inquisitorial prying of an income tax inspector. As Mr Pegler observes "There is more or less larceny in all the human race, and this problem of medicine for the masses would be less difficult if those who can pay were prevented from appealing to public sympathy at the doctor's expense by mingling with the truly destitute."

School Health

The opening of schools throughout the state brings to the fore the question of school health and how the private practitioner may actively further it. While many districts require periodic examination of school children or themselves pro-

vide it, the service offered is frequently very sketchy. Many features of the examination are performed by nurses. Even when doctors are employed, they cannot usually allot sufficient time to each child to make a thorough examination. The answer is to have the family doctor perform these health examinations, at the expense of the state in the case of poor families.

The periodic examinations children undergo must be thorough to have any value. Cardiac children require a different program than normal youngsters. The detection of visual and auditory defects frequently transforms seemingly backward children into brilliant ones. Malnutrition must be remedied, postural faults corrected, focal infections eliminated, to enable a pupil to realize his full potentialities in the classroom. The family doctor is in a far better position to detect these conditions than the school physician who has no knowledge of the child's heredity or environment, sees him once and then has time for only a superficial examination.

Physicians, particularly in rural areas where health education is neglected, should emphasize to parents the importance of thorough periodic health examinations during the all important school years. Many diseases of middle and old age could be prevented, or at least postponed, if the family doctor were enabled to play a more active role in school health.

Our Public Health G-Men

There comes from the New York City Department of Health a story which is in the best traditions of Sherlock Holmes and the F B I—a story which deserves a better write up than the matter-of-fact report in their *Quarterly Bulletin*¹. The amateur detective in us rises in revolt against the disparaging manner in which such a brilliant piece of deduction was recorded, as follows:

"Three cases of typhoid fever were reported to the New York City Health Department in the latter part of April. All of them gave a history of having traveled by bus from Chicago to New York City, during which time they showed no symptoms of the disease. All of them gave the date of the appearance of the first symptom as April 15. Through correspondence with the Chicago Department of Health it was found that two additional cases of typhoid fever under investigation there had traveled on this same bus line at about the same time, but in the opposite direction. With interest centered on this line, the scheduled stops were checked carefully with the routes taken by the patients, and two of the stops, one in Indiana and one in Ohio, were the only ones found to be common to all of the cases. Further investigation of the reported New York City typhoid cases gave the final clue—a man who had driven in to New York City alone by automobile from Chicago had stopped only at the Indiana restaurant.

"Correspondence with the Indiana State Health Department disclosed that it had traced about forty cases of typhoid fever to a contaminated water supply at the inn patronized by the bus passengers. The disease had been reported in thirty residents of Indiana, and in passengers from Ohio, Illinois, Michigan and California, as well as from New York. The water used at the inn had been contaminated by a sewer which was broken about five feet from the well used as the water supply. The inn was ordered to close. Fluorescein flushed through the toilet system at the inn entered the sewer, and was recovered within five minutes in the well water, thus confirming the suspicion that this leak in the sewer was the cause of the outbreak. The sewer was immediately repaired and then tests made of the water from the well showed that it was no longer polluted. The local health department, now being satisfied that the water was safe, permitted the restaurant to open."

Where were the headlines and the fan-

¹ *Quarterly Bulletin*, N Y C Dept of Health 6 96, 1938

fare? The fact that a sewer was the culprit is no excuse for belittling this outstanding feat of detection. As a matter of fact, the solution should stand out as a shining example to the criminologist. The sewer was not thrown in jail but was repaired and then permitted to function as a useful sewer should. We insist, therefore, that when *Quarterly Bulletin* again publishes detective stories the writing of them be entrusted to someone of the caliber of Agatha Christie or Conan Doyle. How we would relish what they would have done with this thriller!

Normal Human Serum in Multiple Sclerosis

The etiological factor responsible for the onset of multiple sclerosis has as yet not been determined. The majority of authors favor the theory that an infectious virus is the pathogenic agent. The disease becomes manifest most frequently between the ages of fifteen and thirty years, and it is exceptional to find an onset of multiple sclerosis in a person past fifty years.

In view of this, Stransky¹ reasoned that all who have escaped the disease must possess antibodies against the virus. As donors he selected people over fifty years of age. Injections of serum were preferred to direct blood transfusions because of the ability to regulate dosage in small quantities and also to spare elderly donors undue strain. Twenty cases of long standing multiple sclerosis were treated by gluteal injections of normal serum. In five there was an extensive and lasting improvement. Twelve cases showed less impressive but nevertheless favorable and lasting reactions. The remaining three had practically no result.

While it is known that the clinical course of multiple sclerosis is characterized by remissions the prompt appearance of the favorable changes immediately following the injection of normal human serum

speaks against the possibility of coincidental spontaneous remissions. While the report of Stransky deals with old cases only, it would seem that if we are to accept the theory of an infectious virus as a working hypothesis, an agent is at hand which appears to ameliorate the symptoms of multiple sclerosis and with further study, may prove capable of arresting the progress of the disease.

CURRENT COMMENT

THERE IS NOTHING QUITE AS satisfactory as having a humorist in the government. It is, of course, very novel. Politicians always take themselves so seriously that humor departs from their cosmos when the ballots are counted. It is interesting to see that the world over

The brain trusters' rarely laugh. Imagine a crowd that let themselves be called brain trusters without kicking a row over it. The only exception, I think, is David Cushman Coyle. He and I once made speeches before the Economics Club in New York. His was about how the United States was really not in debt and how the budget was really balanced.

Now I have thought about that speech loads of times because if it was meant to be humorous it was the funniest speech I ever heard. I would hate to believe that that was not a humorous speech. It would leave me without any illusions.

So I say hail Thurman Arnold! Humorist and politician! That American Medical Association antimonopoly attack may be the biggest joke in years. It may be a joke on John Lewis but what do we care so long as it is a joke?—An interesting way of looking at the situation presented by George E. Sokolsky in the August 14 *New York Herald Tribune*.

'IF IT IS TRUE THAT one-third of the people cannot get proper medical and pharmaceutical care, the answer is not to abolish private practice of medicine and pharmacy but to abolish poverty.'—The words of Dr. William J. Carrington, President of the Medical Society of New Jersey, before the New Jersey Pharmaceutical Association recently.

"LIMITED MEDICAL, OPHTHALMIC AND DENTAL care for 50c a year will be offered New York City high school students be-

¹ Stransky, E. *Monatsschr f Psych u. Neur.*, 98:237, 1938.

ginning this fall. The local High School of Music and Art's 1400 students have been selected as 'guinea pigs' of what is frankly admitted to be an 'experiment'

"Subscriptions will be 'voluntary', free to the indigent. Principal Benjamin M. Steigman claims nearly 100% backing for the plan from pupils and their parents.

"How much treatment members may expect for their half dollar is undecided. Tentative plans call for medical and eye examinations, free dental treatment, prescription and fitting of eyeglasses. Although pay for staff members is also undetermined as yet, school authorities report a flood of applications for the jobs."—News of "Half-Dollar Care" in *Medical Economics* of August.

"POLITICS, WITH THE UNLIMITED spending of federal money and the unlimited newspaper propaganda emanating from the various government agencies, will undoubtedly bring about state medicine, if the public and organized medicine do not awaken and fight."—A warning from the pen of Dr. Clyde P. Dyer, Manager-Editor of the *St. Louis County Medical Society Bulletin* in the August 19 issue of that journal.

"AT VARIOUS TIMES DURING the past few years, various spokesmen for various groups have complained that the medical profession refused to cooperate with anyone to find the solution for our health and sickness problems. They have hurled charges and smeared everyone opposed to them with the same bucket of tar.

"If those parties taking such an interest in spending nearly a billion dollars of the tax-payers' money were honest in their attempt to draft a comprehensive program for bettering national health conditions, they would not have to ask twice to secure the full cooperation of the leaders of organized medicine because there is no group on earth as interested in solving this problem as is the medical profession itself."—*Tulsa County Medical Society Bulletin* (Oklahoma).

"THE APPROACH MUST be not from the profession's interest, but from that of the public, the profession merely being in a better position to see and evaluate the effects of this, that or the other plan upon the public welfare, and therefore volunteering this accurate information to the public in order that it may arrive at the proper conclusions.

"Much of the public's information concern-

ing the functioning of medical service is influenced by the practices prevailing in quackery. If diseases can be successfully treated as indicated by the advertisements in the daily press and over the radio, then the nostrums advocated by the sociologists and economists are eminently proper and correct. Once the public is convinced of the true nature of such medical practice, it will become obvious to the public that its health can be maintained upon an individual and not a group basis. But what a job this will be!"—From the *Weekly Roster and Medical Digest*, and we sincerely agree with them.

"MEMBERS OF THE PROFESSION who oppose socialized medicine fear, as far as we can gather their position, that it will destroy the personal relationship which should exist between the physician and the patient, and that it will check medical progress. The physician in private practice knows that his success depends in very large part upon his assiduous care of his patient, and upon what the older physicians used to call "his bed-side manner," which simply meant his ability to inspire the sick man with confidence. About these points, the government-paid physician need not greatly care, for whatever happens to the patient his practice and his fee are assured.

"We have suffered so much from the dead hand of bureaucracy in this country that the suspicion and distrust of the average physician whenever socialized medicine is mentioned can be easily understood. In our opinion, the suspicion and distrust are well-founded. Certainly, the profession must cooperate with every agency in the community to supply adequate medical care for and especially for the poor. But it must not be taken for granted that the best way, or the only way, of providing this needed care is through medical stations subsidized and controlled by the Government.

"We shudder to think that a physician might be appointed not because of his ability to serve suffering humanity, but because of his skill in bringing out the votes at the last election. Our sick should be cared for by physicians, not by scheming politicians. Here is not the least serious of the problems to be solved by the advocates of socialized medicine."—The *Illinois Medical Journal* of August, brings us this article from *America* of June 25.

"WHATEVER CRITICISMS NOW MAY be aimed at it (the American Medical Association) by the idealistically minded who are shocked at obvious imperfections in the medical services available to the people as

a whole, the fact remains that the organized profession itself, voluntarily and from a sense of duty, is responsible for about every thing 'social' in the practice of the healing arts today.

"Whatever grievance any one may feel against the American Medical Association for its present honestly waged battle against

socialized medicine, it must be remembered that any sort of socialized medicine would be a fantastic dream had it not been for the organized profession's own idealistic endeavors'—*The Paterson News* contained the foregoing on August 18 under the heading 'Let's Be Fair to the Doctor and Look the Facts in the Face'

INTER STATE POSTGRADUATE MEDICAL ASSOCIATION

The twenty third International Assembly of the Inter State Postgraduate Medical Association of North America will be held in the public auditorium of Philadelphia, October 31 to November 4. All scientific and clinical sessions will take place in the auditorium.

Hotel headquarters will be the Benjamin Franklin Hotel.

The members of the medical profession of Philadelphia are correlating for the clinics an abundance of hospital material representing various types of pathological conditions which will be discussed by the contributors to the program.

In the neighborhood of eighty distinguished teachers and clinicians will appear on the program, a tentative list of which may be found on page ix of the advertising section in this issue. The subjects and speakers have been selected to consider practically all the subjects of greatest interest to the medical profession in general.

A full program of scientific and clinical sessions will take place every day and evening of the Assembly starting each morning

at 8 00 o'clock. On account of the fullness of the program, restaurant service will be available at the auditorium at moderate prices.

The members of the profession are urged to bring their ladies with them as a very excellent program is being arranged for their benefit by the Ladies Committee. Philadelphia has many places of historic and other interests which will make this year's program especially attractive to them.

Preassemble and postassemble clinics will be held in the Philadelphia Hospitals on October 29 and November 5.

It is very important that you make your hotel reservation early by writing Mr. Thomas E. Willis, Chairman of the Hotel Committee, Chamber of Commerce Building 12th and Walnut Streets Philadelphia Pa.

The Association, through its officers and members of the program committee extend a very hearty invitation to all members of the profession in good standing in their State and Provincial Societies to attend the Assembly. The registration fee is \$5 00.

Though not recognized by the state, osteopathy is not only tolerated in Great Britain but like other forms of irregular practice is patronized by persons of high social position and is often a lucrative business. However meddling with a dangerous disease may prove serious as the following case reported in the *AMA Journal* shows.

A young school teacher had been under medical treatment for diabetes for some years. According to her physician her condition was satisfactory and likely to remain so provided she followed the dietetic instructions and continued with injections of insulin. She met an osteopath who told her that she had not diabetes and was suffering from anemia. His examination merely consisted of looking at her eyes and feeling her pulse. He told her to fast for four days and take orange juice every two hours. She did so

and discontinued her injections of insulin. She became ill and then the osteopath advised that she be given a little insulin in milk but she lapsed into coma and died. The osteopath was committed for trial on the charge of manslaughter.

Pupils at many schools now receive sun ray treatment. They declare that it is much pleasanter to take than the old fashioned method of tanning—*The Humorist London*.

'Has the doctor you're engaged to got money?'

Why of course. Did you think I was getting married to improve my health?—*Methodist Protestant Recorder*

Public Health News

Public Health Notes

J ROSSLYN EARP, L R C P, Dr P H
New York State Department of Health

Mail Box Out of Quarantine

Thomas Cogan¹ tells us that Hippocrates "delivered the Cite of Athens from a great Plague onely by causing many great fires to be made in sundry places within the Cite and round about it" This he offers as evidence in support of his own doctrine that "among all things that purifie the aire, either within the house or without, none is better than fire, for fire by nature doeth consume corruption" And fire has ever since been the proper refuge of fomites I well remember that the only sock I ever knitted suffered incineration because it was a labor of convalescence from scarlet fever But the letters I wrote on that occasion were, I believe, actually dispatched after being baked to a crisp brown in a hot oven

I was born thirty years too soon Fomites are no longer feared as of yore So careful

Domestic Relations Law

The legislation recently adopted by New York State which requires premarital examination for syphilis is regarded by the Council of State Governments¹ as a model in this respect. If other states adopt similar laws (and five other states have done so in the past twelve months) evasion through out-of-state marriage will become difficult While New York is thus the center of attention it is particularly desirable that we should take pains to give the new law a thorough trial I learn from the division of Syphilis Control that Section 13-A, paragraph 3, is not yet as well understood by the profession as smooth function of the law demands The section reads as follows

Each physician's statement shall be accompanied by a statement from the person in charge of the laboratory making the test, or from some other person authorized to make such test, setting forth the name of the tests, the date it was completed and the name and address of each person whose blood was tested, but not stating the results of the test. The physician's statement and the laboratory statement shall be on the same form sheet Upon a separate form a

a writer as Theobald Smith barely refers to them in his chapter on "The Survival of Parasites and Movement from Host to Host"² Quite respectable people borrow books from lending libraries and epidemiologists ask about second-hand clothing only when they are in search of lice

Reflecting the change is this ruling of the Postmaster General given to the Treasury Department in Washington

In view of the information which you have submitted, the provisions of Section 1027 of the Postal Laws and Regulations have been modified so as to permit a rural carrier to collect first class mail or printed matter from the mail box of a patron in whose family a contagious disease exists

References

- ¹ Cogan, Thomas *The Heaven of Health*, page 266, London, 1586
- ² Smith Theobald *Parasitism and Disease*, Chapter VII, Princeton, 1934

detailed report of the laboratory test, showing the result of the test shall be transmitted by the laboratory to the physician, who, after examining it, shall file it with the district state health officer, or, in a city of over fifty thousand population, with the department of health of such city, and it shall be held in absolute confidence and shall not be opened by public inspection, provided that it shall be produced for evidence at a trial or proceedings in a court of competent jurisdiction, involving issues in which it may be material and relevant, or on order of a justice or judge of such court requiring its production

Your attention is called to the fact that the detailed laboratory report must be filed with the district state health officer or in a city of over fifty thousand population with the department of health of such city The Commissioner of Health has ruled that physicians residing in areas served by full-time County Departments of Health shall forward these reports to their district state health officers through their respective county Commissioners of Health

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- ¹ Macy, F A *Marriage Insured Against Syphilis* page 262, Survey Midmonthly August 1938

Medical News

Albany County

AN ENJOYABLE CLAM BAKE, with games, prizes, music and dancing was held by the Medical Society of the County of Albany on September 14, at Picards, New Salem

Bronx County

DR. EDWARD BROQUET who had practiced medicine for more than fifty years most of the time in the Bronx, died at his home on August 4 after a short illness. He was eighty. He was a charter member of the Bronx County Medical Society

Broome County

DR. A. R. CARPENTER addressed the Broome County Medical Society on June 14 on 'Fracture of Scaphoid of Wrist' and Dr C. M. Allaben spoke on 'Club Feet.'

Cattaraugus County

DR. THEODORE J. HOLMLUND was elected president of the Cattaraugus County Medical Society at the annual meeting held at the Olean House on June 14. Dr Holmlund succeeds Dr Howard Stoll as head of the Society.

Other officers named include Dr A. L. Runals, *vice president*. Dr Leo Reimann, *secretary-treasurer*. *Censors* elected include Dr W. C. Goodlett, Dr N. P. Johnson, Dr Charles Perkins, Dr Howard Stoll, Dr Ira Livermore and Dr J. L. Preston.

Following the business meeting Dr John M. Barnes, radiologist at the Millard Fillmore Hospital, Buffalo gave an interesting discussion of x-ray findings in stomach and intestinal conditions.

DR. C. A. GREENLEAF was reelected president of the Cattaraugus County Tuberculosis and Health Association at the luncheon and annual meeting at Portville on June 8.

The meeting was also designed to honor Dr John H. Kornis who is celebrating the tenth anniversary as head of the Bureau of Tuberculosis of the County Department of Health and superintendent of Rocky Crest Sanatorium. Mrs. Ann Collins Nelson R.N., tuberculosis nurse who has served in the county from May 1919 to 1938, also was a guest of honor.

Cayuga County

DR. GEORGE H. BEERS, widely known Auburn physician and surgeon for the past

twenty-four years died on August 16 in Auburn City hospital where he had been ill since June 16. He was a former president of the Medical Society of the County of Cayuga.

Chautauqua County

THE ANNUAL INTERSTATE MEDICAL day under the auspices of the Medical Society of the County of Chautauqua was held at Chautauqua on July 27 with an exceptionally interesting program.

Chemung County

MEMBERS OF THE CHEMUNG County Medical Society enjoyed their annual outing with a program of sports, a dinner and talks at the Cold Brook Club on July 13.

Sixty physicians and guests participated in or watched a softball game between teams captained by Dr. John T. Lynch and Dr. Francis S. Creighton. After the sports program the doctors pitched horseshoes and played other games until dinner.

Dr. George M. Case, dean of the Chemung County medical fraternity, was guest of honor. Dr. John Conway, state district health officer, also was guest.

Chenango County

THE SEMI-ANNUAL meeting of the Chenango County Medical Society was held on June 14 at the Cansawacta Country Club. There was a business session followed by a luncheon and talk by Dr. B. W. McCuen on 'Back Injuries and Court Procedure.' Dr. N. C. Lyster presided.

Cortland County

A NUMBER OF FRIENDS of Dr. E. A. Didama entertained members of the Cortland County Medical Society at a complimentary dinner on June 22 to mark fifty years of service given by the guest of honor as a member of the society.

Dutchess County

MEMBERS OF THE DUTCHESS County Medical Society enjoyed golf, baseball and other entertainment at an outing held on the Harlem Valley State hospital grounds on June 30. Approximately thirty-five members attended. Movies of 'Insulin Treatment of Dementia Precox' were shown.

Erie County

THE BUFFALO ACADEMY OF MEDICINE held its first annual golf tournament and field day on August 18 at the Meadowbrook Golf and Country Club. Members had an opportunity to enjoy themselves with a variety of outdoor and indoor sports.

Franklin County

DR PLATO SCHWARTZ AND DR D J STEPHEN, both of the University of Rochester Medical school, were the speakers at the semi-annual meeting of the Franklin County Medical Society on June 15 in the John Black room at Saranac Lake.

Dr Schwartz' subject was "An Interpretation of Foot Function Now 129 Years Old." Dr Stephen spoke on "Clinical and Laboratory Tests of Vitamin Deficiency."

Genesee County

TWENTY-TWO MEMBERS of the Genesee County Medical Society attended the annual picnic held at the home of Dr and Mrs Charles D Graney at Le Roy on June 23.

Golf and quoit pitching preceded the picnic lunch served on the lawn.

DR HENRY MORRIS SPOFFORD, well-known Batavia physician and chief of the medical service at St. Jerome's Hospital, died on July 9 at his home. He had been ill with heart disease for two months.

Jefferson County

DR J MORTIMER CRAWE, who died on August 13, after practicing medicine in Watertown fifty-one years, was a former president and treasurer of the Jefferson County Medical Society. Both Dr Crawe's father and grandfather were prominent Watertown physicians, and the father helped reorganize the county society in 1868, and served as its president.

Kings County

ABOUT SEVENTY-FIVE DOCTORS attended the annual dinner of the Bay Ridge Medical Society, held at the Marine and Field Club.

Dr John B D'Albora, president of the Kings County Medical Society, was guest speaker.

Following the dinner, officers were elected as follows: *President*, Dr Kenneth Macinnes, *vice-president*, Dr John G McNamara, *treasurer*, Dr Harold C Denman, and *Secretary*, Dr Rosario San Filipo. The retiring president was Dr Pedro Platou.

DR LEWIS WALTER PEARSON, one of the oldest practitioners in Brooklyn, was honored by the South Brooklyn Medical Society at a dinner in the Hotel Granada on June 15 marking his fifty years of medical service in the borough. More than 300 attended.

Dr Pearson was hailed as "one of the finest surgeons of the old school in Brooklyn" by Dr John B D'Albora, president of the Kings County Medical Society.

Livingston County

APPROVED BY THE County Medical Society, the movie film, "A New Day," was shown in one hundred per cent of the theaters of Livingston County in May and June. With a star Hollywood cast, "A New Day" depicts the saving of a young mother's life from pneumonia, with modern treatment.

Madison County

DR LEE S PRESTON, secretary of the Madison County Medical Society, former president of the Oneida City Medical Club, has announced his candidacy for nomination for coroner on the Republican ticket to succeed the late Dr Nelson O Brooks, whose term would have expired Dec 31. Dr Brooks, who died on July 5, had practiced medicine forty-five years.

Monroe County

ROCHESTER HAS RECEIVED high praise from Dr William E Brumfiel, director of syphilis control for the State Department of Health.

"More has been done here for the control of this disease," Dr Brumfiel declared, "than in any other city in the state. It is an example of what can be accomplished."

Nearly 1,000,000 blood tests are on file at the Health Bureau as a result of a program initiated in 1914 by Dr George W Goler, it was pointed out by Dr Arthur M Johnson, health officer.

New York County

THE BUREAU OF SOCIAL HYGIENE, Department of Health cooperating with the United States Public Health Service and the State Department of Health, Bureau of Syphilis Control, will inaugurate a series of Saturday morning meetings for physicians and medical students, beginning Saturday morning, October 15, at 10 30 A M, to be held in the Conference Room, 2nd floor Health Department Building, 125 Worth Street, New York City.

Physicians attending the meetings may be reached by phoning Worth 2-6900, Ext 429.

Programs are available for distribution to physicians requesting the same in writing. Address the Bureau of Social Hygiene Room 329, Department of Health 125 Worth Street New York City

THE RESPONSE TO THE CALL for instrumentalists among the medical and dental professions to join the Doctors Orchestra has been most gratifying. The organization now includes not only a large section of string instruments but a considerable number of woodwinds such as clarinets, flutes, trombones and even percussion players. The conductor in charge is Ignatz Waghalter who was formerly general music director of the Charlottenburg Opera House in Berlin.

DR. WILLIAM SEAMAN BAINBRIDGE, president of the International Congress of Military Medicine and Pharmacy, meeting at Luxemburg, has been decorated with the Cross of Commander of the Grand Ducal National Order of the Oak Leaved Crown of Luxemburg.

DR. JOHN MILTON MADBROTT who died on July 1 had been a member of the House of Delegates of the State Society for twenty six years.

DR. EDWIN BEER urological surgeon and an authority on tumors of the bladder died on August 13 at his home after an illness of about a year. He was sixty two. Dr. Beer, a former chairman of the medical board of Mount Sinai Hospital was attending surgeon there and at Bellevue, Lenox Hill and Flower Hospitals. He was the author of numerous articles on gall stones, intestinal diseases and bladder tumors. Two of his most important works were 'Tumors of the Urinary Bladder' and 'Diseases of the Urinary Tract in Children'.

Oneida County

DR. WILLIAM A. Groat president of the State Society spoke at the annual outing of the Oneida County Medical Society at Trenton Falls on July 12. The society voted that applicants for membership either be citizens or have first papers.

A FREE PUBLIC CANCER CLINIC was started in Utica in July under the cancer control committee of the Oneida County Medical Society. It will be purely diagnostic, and will refer patients to their own physicians or such hospitals or institutions as are best for treatment.

Ontario County

AT THE THIRD QUARTERLY MEETING of the (Ontario County Medical) Society at the

Clifton Springs Sanitarium on July 12 Dr. C. E. Richards discussed 'Sulfanilamide Therapy' and Dr. J. A. Kindvall's subject was 'A Cooperative Study of a Psychosis by Patient and Doctor'.

DR. P. W. SKINNER has been elected president of the Geneva Academy of Medicine.

DR. WILLIAM B. CLAPPER died on July 22. He was seventy three and had practiced medicine forty three years.

St. Lawrence County

THE AUGUST SOCIAL MEETING of the St. Lawrence County Medical Society was held at the Massena Country Club on August 18.

Suffolk County

THE QUARTERLY MEETING of the Suffolk County Medical Society had an all-day session at the Wyandotte Hotel on July 27. The doctors had a meeting in the morning and the Woman's Auxiliary met in the afternoon after luncheon with Mrs. Rosell Osk of Manhattan and Bayport speaking on 'Etching'. This was followed by a general meeting for the doctors and their wives. About 100 were present.

Tompkins County

DR. LUZERNE COVILLE, who practiced medicine in Ithaca thirty six years and retired in 1932, died on June 23 at the age of seventy four. It is recalled that the Tompkins County Medical Society welcomed his arrival by voting him to membership and the presidency at the same time. He served again as president when the city hospital was organized and was named first president of its staff. For thirty four years he was the society's delegate to the Medical Society of the State of New York and served as district president and state vice president.

Wayne County

FORTY EIGHT MEMBERS and friends of the Wayne County Medical Society held their annual outing at Sodus Point on August 4 and heard a talk by Dr. Herndon Hudson on Syria and the Near East.

Westchester County

DR. JOHN W. SMITH former president of the Westchester County Medical Society died after a long illness on July 2 in Lawrence Hospital Bronxville where he lived. He was seventy four.

Hospital News

Serious Deficit of Catholic Hospitals

AN OPERATING DEFICIT OF MORE THAN \$700,000 was sustained last year by the Catholic hospitals in the Diocese of Brooklyn, it is made known in the annual report of the Rev Joseph F. Brophy, director of the health division of Brooklyn Catholic Charities, which coordinates and correlates the work of over 100 Catholic agencies in the diocese and is under the general direction of Bishop Thomas E. Molloy.

The total operating cost of the fourteen Catholic hospitals during 1937, the report shows, was \$2,927,702, an increase of more than \$225,000 over the previous year. Receipts were \$2,198,331. With a bed capacity of 2,613, there were 40,540 men, women and children treated at the hospitals totaling 729,142 patient days. The clinics reported 151,852 visits.

"The assignment of 330 religious to the work of caring for the sick," Father Brophy states, "results in a saving of \$500,000 a year to our hospitals. Over a thousand doctors are attached to the professional staffs, 700 nurses are needed on the floors and in the various departments of our fourteen hospitals and behind the scenes another thousand employees are found in less conspicuous but no less necessary tasks."

Patient Must Have the Best

"The mighty problem which is worrying our governing boards and Sisters at the present time is the deficit between the cost of operating our hospitals and the earned income or receipts from patients. A decade ago it was not difficult for an individual hospital to secure twenty-five per cent of its budget from voluntary sources. Today it is impossible.

"In an effort to solve this problem the hospitals have done what they could. Costs have been reduced wherever possible, but with hospitals, unlike other agencies, it is

practically impossible to limit the number of patients admitted and entirely impossible to do anything but a complete job for all cases which are accepted.

"The very best in service, equipment and medication must be provided for the patient whether pay or free, regardless of cost. For instance, the average patient would be astonished to hear that, in one of our hospitals, the annual engineering and maintenance budget is over \$500,000, that it costs as much as \$20,000 a year to keep a pathological laboratory functioning in accordance with present day standards, that the full time service of as many as five specially trained employees is needed in the department which cares for his medical record after his discharge from the hospital, that the number of employees in a hospital exceeds the number of patients and, in most cases, even the number of beds available for the patients.

Educational Services

"No picture of a hospital's activities is complete without a reference to its educational program. Through the training of interns and nurses it extends its services beyond its walls. Each year forty interns and 125 nurses are graduated from our Catholic hospitals and this in itself is a notable contribution to the health program of the four counties which are included in the Diocese of Brooklyn namely, Kings, Queens, Nassau and Suffolk Counties."

The general hospitals included in Father Brophy's report are located in Brooklyn, Jamaica, Far Rockaway and Long Island City. The special hospitals are St. Charles for the Blind, Crippled and Defective at Port Washington, St. Anthony's, for tubercular cases, at Woodhaven, Mercy Hospital for obstetrical service, at Hempstead and St. Cecelia's, also for obstetrical service.

Newsy Notes

THE DAY WHEN A PATIENT can call up the Board of Health and order a trailer hospital sent to his door for an operation on an unruly kidney may be at hand.

It has already arrived in Texas, accord-

ing to Dr. Guy S. Millberry, Dean of the College of Dentistry, University of California, who has, himself, completed a six months' trailer trip through the United States and a portion of Canada in an effort

to gain first hand information on the public health phases of dentistry everywhere.

The hospital trailer was found in the little city of Ysleta, Texas, and is owned by a Dr Love, according to Dr Millberry. While it is equipped chiefly for obstetrical work in the rural sections, it can accommodate other types of cases. In some respects it is far superior to a number of the smaller, isolated hospitals throughout the country, Dr Millberry says. The trailer hospital works within a range of fifty miles or so around Ysleta and accomplishes from thirty to thirty five deliveries a month. A trained nurse accompanies it as a rule, but additional technicians can be accommodated when needed.

THE JOBS OF 150 helpers in New York City hospitals have been saved by Supreme Court Justice Alfred Frankenthaler. The Civil Service Commission drafted a reclassification plan last summer which would have ousted them or forced them to take competitive examinations, but the court ruled it could not remove incumbents who have "served with fidelity."

DR. HORACE LOGRASSO, superintendent of the J N Adam Memorial Hospital at Perrysburg, was given a testimonial dinner on May 5 at the Hotel Statler in Buffalo in recognition of his twenty five years of service to sufferers from tuberculosis. More than 500 friends were present. Dr Robert E. Plunkett, director of the tuberculosis division of the New York State Department of Health, praising the work of Dr LoGrasso, stated that "the history of tuberculosis in New York State is the history of Dr LoGrasso." Dr Plunkett particularly noted the work of Dr LoGrasso in the field of heliotherapy, and stated that the doctor was a recognized authority, not only in this country, but in Europe, for the treatment of tuberculosis.

Improvements

THE NEW YORK MEDICAL College and Flower Hospital will build and equip at a cost of \$1,500,000 a ten story building in the rear of the Fifth Avenue Hospital within the next twelve months, it is announced by Charles D Halsey, president of the trustees.

The new building, which will extend through the entire block from 105th to 106th Streets, will house the college activities at present conducted at Sixty-fourth Street and York Avenue, and also the out-patient service of the Fifth Avenue Hospital.

CONSTRUCTION OF THE proposed new city hospital at Rome has been approved by the Chamber of Commerce through its executive committee, which pledged "the whole-hearted support and co-operation of the Chamber and its members."

ERECTION OF A NEW HOSPITAL building for adult patients at the Niagara County Sanatorium at Lockport was brought a step nearer on May 3, when the Board of Supervisors, meeting at Lockport, adopted a report of the sanatorium committee authorizing the board of sanatorium managers to employ the Association of Licensed Architects of Niagara Falls to prepare detailed plans.

The board has accumulated a building fund of \$175,000, but it is estimated that a 150-bed hospital will cost approximately \$450,000. An appropriation for a Public Works Administration grant will be filed if Congress makes federal funds available for such work.

THE NEW YORK CITY HEALTH Department's program to consolidate, centralize, and relocate child health stations for families of low incomes moved forward when ground was broken at Mount Morris Park by the WPA on June 9 for the construction of the seventh modern one-story baby health station.

The first new building, at 142 North First Street, in the Williamsburg section of Brooklyn, is now ready as a baby welfare station. In August two more stations were completed, one at 105th Avenue, east of Waltham Street, Jamaica, and the other at Linwood Street and Belmont Avenue, Brooklyn.

Other locations where construction is in progress are Nostrand and Myrtle Avenues, Sixteenth Avenue east of Benson Avenue and at 62-64 Second Place, Brooklyn.

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

An Interesting Fracture Case

The highest court of one of the States of the Southwest a few weeks ago decided a case relating to malpractice charges in connection with the care of a fractured ankle which is of considerable interest*.

The action in question was brought against Dr. E by a Mrs. B and her husband to recover damages for alleged malpractice alleging in the complaint that he had been negligent in treating Mrs. B until February 1936.

It appeared from the testimony upon the trial that in September 1927, the plaintiffs had engaged defendant, for many years a practicing physician and surgeon, to reduce Mrs. B's fractured ankle. He did so by means of an operation, making an incision at the point of fracture, bringing the broken fragments of bone into apposition, and permanently fixing them in place by the use of a metal screw placed in the bone. Following the operation defendant continued to attend Mrs. B for several weeks until complete union of the bone had been established. His services were then terminated. There was no serious claim upon the trial or upon the eventual appeal that said treatment was other than properly rendered.

Seven years later (September 1934) Mrs. B again consulted the doctor complaining that the ankle was causing her considerable pain. He examined it, and wrapped it with adhesive tape, and made an alteration in an arch support which he had provided for the patient seven years before. Within a week he removed the bandage and apparently rendered no further treatment at the time.

The next the defendant attended the patient was in January 1936, when he again examined the ankle, but rendered little or no treatment. She went within a few days to another physician, Dr. K, who after hearing her history and noticing discoloration and swelling, caused an x-ray to be taken. The x-ray disclosed that there was necrosis of bone about the screw. He operated and removed the screw. From that time Mrs. B made an uneventful recovery, the ankle becoming practically normal.

It was the prime contention of the plaintiffs that in 1934 Dr. E should have made an x-ray examination of the ankle. Upon the trial the defendant testified that at all times he had done what was required by his patient's condition as he found it. Dr. K appeared as a witness, and described the condition found by him in 1936, and what he did for it. He stated that he could not say how long prior to that time the screw should have been removed, but that if at an earlier date the ankle had been in the same condition as he found it in 1936 the screw should have been removed at such earlier date. Dr. K further testified that if he had been in the position of Dr. E in 1934, his first conclusion would have been that arthritis caused the pain, but that he personally would not have been fully satisfied without taking an x-ray. On cross-examination Dr. K testified that Dr. E's method of reducing the fracture was a standard one, and that ordinarily such screws as were used were not removed unless they made trouble. At no point in his testimony did Dr. K state what in his opinion was the proper standard of practice in 1934, or as to whether, in his opinion, defendant deviated from that standard. The most he did say was that he personally would have had x-rays taken. There was no other testimony bearing upon medical standards or proper treatment.

At the conclusion of the evidence of the plaintiffs the Court directed a verdict in favor of the defendant, on the grounds that there was no competent evidence to establish malpractice on the part of defendant.

Counsel for plaintiff upon the appeal from the judgment, contended that sufficient had been shown for the submission of the case to the jury. The Appellate Court, however, affirmed the judgment of the Trial Court, saying in the course of its opinion:

Counsel for plaintiffs, in their oral argument, apparently realized the weakness of their evidence upon the vital point of what the proper medical standard required in 1934 and based their claim of negligence almost entirely upon the failure of defendant to take an x-ray of Mrs. B's ankle at that time. They urge that this comes within the exception to the general rule, in that a failure to do so is such obvious negli-

**Boyer v. Brown*, 77 Pac. (2nd) 455

gence that even a layman knows it to be a departure from the proper standard. We think this contention cannot be sustained. It is true that most laymen know that the x ray usually offers the best method of diagnosing physical changes of the interior organs of the body and particularly of the skeleton short of an actual opening of the body for ocular examination, but laymen cannot say that in all cases where there is some trouble with the internal organs that it is a departure from standard medical practice to fail to take an x ray. Such things are costly and do not always give a satisfactory diagnosis, or even as good a one as other types of examination may give. In many cases the taking of an x ray might be of no value and put the patient to unnecessary expense, and, in view of the testimony in the present case as to the arthritis which Mrs. B had, and which Dr. K testified would have been his first thought as to the cause of Mrs. B's pain in 1934 we think it is going too far to say that the failure to take an x ray of Mrs. B's ankle at that time was so far a departure from ordinary medical standards that even laymen would know it to be gross negligence. Since therefore, there was insufficient evidence in the record to show that defendant was guilty of malpractice, under the rules of law above set forth the court properly instructed a verdict in favor of the defendant.

Foreign Body In Eye

A woman came to the office of a doctor specializing in the treatment of ailments of the eye, ear, nose, and throat, with a history of having been hit in the left eye by some object four or five days previously. She told the doctor that she had been watching some men working on an automobile and had felt something strike her eye but she did not know the size or shape of it, but simply complained she was in pain at the time she came for examination.

Examination revealed a slight redness around the cornea. The cornea was clear but a speck of blood at the bottom of the anterior chamber was noticed. Examina-

tion showed no foreign body in the eye. She was treated with atropin and heat and dark glasses were provided for the patient. She was seen over a period of about two weeks and at the end of that time everything seemed to be normal. The patient at no time complained of any unusual pain. The patient was not seen again for a period of over three months. She at that time returned to the physician who examined her and found that she had developed an opacity of the lens of the left eye. Again it was impossible for the doctor by examination to find the presence of any foreign body and he again undertook to treat the eye. Finally about four or four and one half months after the original injury an x ray was recommended and the report indicated the presence of a minute foreign body about one-quarter the size of the top of an ordinary pin, lying in the lens. The physician referred the patient to another doctor for the purpose of removing the particle and never saw her thereafter.

The end result of her injury was that after an attempted removal with a magnet which failed she underwent three operations: first an iridectomy for the removal of a foreign body; next a lens extraction and subsequently a lens needling operation.

A malpractice action was instituted against the physician charging him with malpractice in having failed to ascertain the presence of the foreign body and removing the same in time to avoid the injuries which the plaintiff sustained.

The case came on for trial before the Court and Jury and it was established on behalf of the defendant that the end result—the injury to the lens—would have come about even if the defendant had promptly discovered the presence of the foreign body.

At the conclusion of all the testimony in the case the court directed a verdict in favor of the defendant thereby exonerating him of the charges of malpractice.

CAMP FOR DIABETIC CHILDREN

A new camp for poor children afflicted with diabetes where they were taught self injection of insulin as well as dietetic requirements necessary to keep them in good health was opened on June 29 at Kerhonkson N. Y. under the auspices of the New York Diabetes Association.

Dr. Charles F. Bolduan, first vice president of the association, said that the diabetic children are "a particularly disinherited group since they can find no facilities for

a summer outing in the camps for normal children." The association's camp, he said, was in charge of doctors who volunteer their services with a resident nurse dietitian supervising the treatments.

"The importance of self treatment by these children even for those as young as six years, is apparent when it is realized that all of the children are from poor families without easy facilities for regular injection of insulin by doctors," he said.

The Business Side of Medical Practice. By Theodore Wiprud. Octavo of 177 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937. Cloth \$2.50.

The title does not cover the contents of the book, which includes some 50 pages out of 150 of suggestions on writing, speaking and other matters.

The suggestions made on office management, records, etc., are well expressed and the book has a comfortable brevity. It can be recommended for the objects for which it was designed.

WALTER D. LUDLUM

Concepts and Problems of Psychotherapy. By Leland E. Himsie, M.D. Octavo of 199 pages. New York, Columbia University Press, 1937. Cloth, \$2.75.

In a compact volume the author endeavors to present the many-sided problems arising in connection with the nature and therapy of the mentally and neurotically ailing. The first and by far the largest chapter is devoted to psychoanalysis. The next chapter discusses Meyer's psychobiology. Finally, the theories of Adler and Jung are briefly sketched. The author has done his work exceedingly well.

Though containing no new ideas or concepts, it gives an able resumé of developments in psychiatric thought. The imposing structure which psychoanalysis has reared is subjected to a lengthy discussion of its fundamental tenets, the principle of repression, the unconscious, the ego, the super-ego, transference, sublimation, etc. The Oedipus situation and the whole train of phenomena which are subsumed under the heading of sex development are given ample space.

As to psychobiology, it is not a new concept, but has been brought forward with telling effect, in this country by Adolph Meyer. One is struck by the tremendous amount of labor that is required to obtain a history of a patient's life. In order to make psychobiologic treatment effective it is essential that we take cognizance of all the minutiae of the daily life and activities of the patient and of his environment, and artificially create for him an environment which is to be regulated by doctor, nurse, social service and other entourage. These are to be changed if they do not harmonize with the patient.

One fears that the physician may actually lose himself, and forget about his problem in the maze of conflicting cross-currents which make up an individual's life. One naturally is inclined to feel that the solution to the dementia precox problem is nearer home than he imagines, only, he does not seek it in the right direction.

JOSEPH SMITH

Medicine for Nurses. By W. Gordon Sears, M.D. Second Edition. Duodecimo of 435 pages, illustrated. Baltimore, Williams Wood & Company, 1937. Cloth, \$3.00.

This book succeeds in its aim to give a fairly comprehensive account of the more common diseases "laying stress on signs and symptoms which the nurse can observe for herself." The syllabus laid down by the General Nursing Council of London has been covered. New material in this edition includes the oxygen to continuous drip transfusion, acute dilatation of the stomach, causes of sudden death, derivation of words, and poisoning.

It is a well-written book, and the selection of facts presented seems particularly good.

WILLIAM E. MCCOLLOM

Manual of Clinical and Laboratory Technique. By Hiram B. Weiss, M.D., and Raphael Isaacs, M.D. Fifth edition, reset. Duodecimo of 141 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937. Cloth, \$1.50.

This is a new edition of a manual prepared primarily for clinical laboratory students and the correlation of clinical and laboratory work at university hospitals. Beyond such specific usage, it is an exceptional reference guide for the new tests, contains gross details of more common clinical laboratory procedures, and summarizes data perhaps of more special interest to the intern than to others. It has major value for the technician in a large number of more recent procedures infrequently contained in such handy form. The recent methods given are all of general clinical usage, and are rarely found at present time within one cover. The practicing clinician might wish the handbook for this feature alone.

IRVING M. DERBY

ORDERING BOOKS

As a service to our readers, books listed in this issue or any other medical book in print may be ordered through T. H. McKenna, Inc., 878 Lexington Avenue, New York City. Phone BUtterfield 8-5603.

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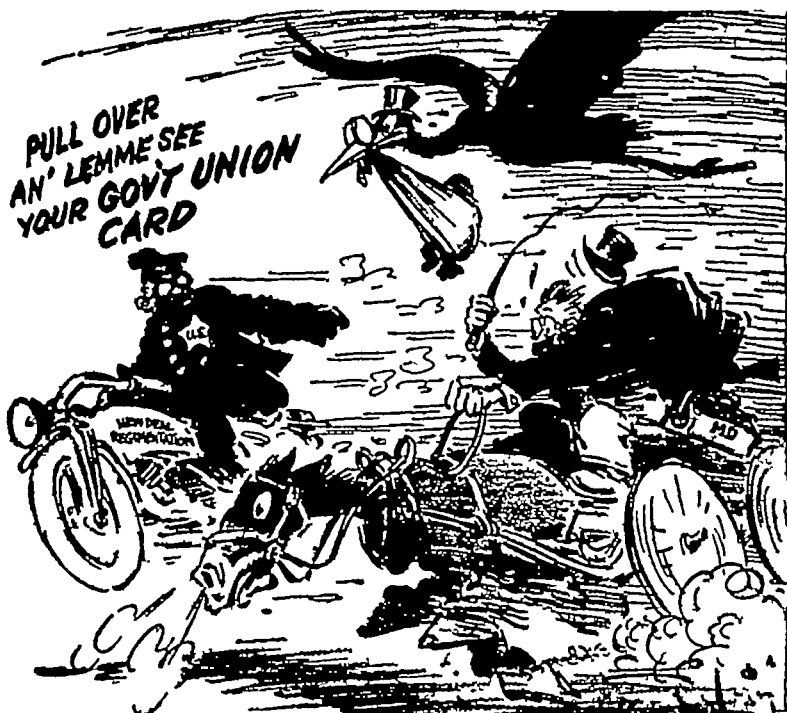
"The importance of self treatment by these children even for those as young as six years is apparent when it is realized that all of the children are from poor families without easy facilities for regular injection of insulin by doctors," he said.

Across the Desk

Trying to Pin Horns and Hoofs on the Family Doctor

WHEN THE PERSECUTION of any class in this country is carried so far that it becomes comic, that is a sign it is near its finish. It is not long before it is laughed out of court. Nothing more ridiculous has happened in a long time than the solemn threat of an assistant attorney general in Washington to prosecute the American Medical Association and the District of Columbia Medical Society under the anti-trust law. The

likely to discredit its authors than it is to injure the M Ds, to judge from some of the press comment. It "is a piece of amazing political stupidity," says David Lawrence in his syndicated dispatches, and he even goes so far as to say that "it is another example of how the zealots in the administration are manipulating the laws of the United States to gain the goals of their so-called social experiments." "It is a slick,



Chicago Daily News

"ANY DAY NOW"

(Spotted by an alert County Society Secretary)

members of the medical profession "must have rubbed their eyes" as they read of it, remarks an upstate newspaper, the *Rochester Times-Union*, for "it's a new experience for physicians and surgeons to find themselves classed with oil-magnates, steel barons, railroad tycoons and others who have been accused of conspiracy in restraint of trade."

This attempt to pin horns and hoofs and a spiked tail on the family doctor is more

novel, and sort of smart-aleck use of a forty-year-old law for a purpose for which nobody ever before believed it was intended," remarks Gen Hugh Johnson in his widely-syndicated editorials, and Paul Mallon, in his "News Behind the News," declares flatly that this threatened suit "would simply mean the Justice Department is misnamed, and has become, instead, a prosecution department, to enforce, not alone the law, but social and economic theories." What we

may see "any day now" is visioned by the *Chicago Daily News* in the accompanying cartoon

The Milk in the Coconut

The entire row-de-dow revolves around the 'Group Health Association, Inc.', a body of some 2,500 government employees in the District of Columbia, formed to provide prepaid medical care, supplied by its own doctors, retained on salary. This of course violates the basic principle that the patient be free to pick any doctor he likes and at once it drew the frown of the District Medical Society, which threatened to expel not only doctors employed by the group, but also any doctors who took part in consultation with them. The Washington hospitals, too, barred the Group doctors from their doors. "In the opinion of the Department of Justice" says the official statement, "this is a violation of the antitrust laws." So the District doctors are to be haled to the bar and we may perhaps shortly see them doing a neat lock step, clanking along musically with ball and chain.

Just why the leading minds down on the Potomac are so tender about the Group Health Association is revealed in the official statement, which informs us that "although this proceeding concerns especially the District of Columbia, it is selected because its importance is nation wide and its value as a precedent is of far reaching consequence on one of our most pressing problems." Then follows a long argument on the pressing problem, "which turns out to be our old friend socialized medicine. In short, it seems that everyone was right a year ago in sensing that the Group Health Association was formed as the germ of the great socialized medicine movement, with the hope that it would grow to cover all America. If that is the case, then the District Medical Society has been doing a little germicidal work and rather effectively too for the Group has found "great difficulty in employing competent physicians as the statement plaintively complains.

No "Moral Turpitude" in These Octopi

The weakness of the charge that the doctors are a sort of medical octopi is evident in the very statement itself, which is issued by Assistant Attorney General Thurman W. Arnold. He very kindly assures them that he "does not necessarily charge a crime

involving moral turpitude" and hints that in the event of their "voluntary cooperation" and "elimination of illegal practices," the Department will submit such proposals to the court "as a basis for a consent decree." In other words he naively invites complete surrender perhaps feeling in his bones that no court would ever sustain his charges.

We are opportunely reminded by *The Saturday Evening Post* (August 27) that Mr. Arnold while a professor of law at Yale less than a year ago wrote a book in which he scoffed at all antitrust legislation, and said that in the great trust busting era of a generation ago the actual result of the antitrust crusade was to make the great industrial organizations grow larger than before. By virtue of the very crusade against them the great corporations grew bigger and bigger, and more and more respectable."

Another Fight for Freedom

It can hardly be supposed that Mr. Arnold is launching his campaign against the A.M.A. to make it bigger and more respected, yet that may be the actual result, for the A.M.A. is fighting for the right of the patient to pick his own doctor. It is a fight for medical liberty medical freedom a fight against that kind of socialized group medicine where the patient must take the doctor employed by the men who run the organization. This happens to be a land where battles for liberty have a habit of winning, and when it is clear to everybody that organized medicine is fighting, not even for its own freedom, but for the freedom of the sick to choose the ones to make them well then there can be little doubt of the result. And Mr. Arnold suggests voluntary surrender! It calls to mind the like suggestion of the British captain to Paul Jones who called back above the thunder of the guns "I have just begun to fight!" Paul won.

No Objection to Sound Plans

It will be perfectly easy for the Assistant Attorney General or for any others in the inner administration circles, to find out what kind of medical insurance groups are acceptable to the medical profession. This, in fact is being clearly pointed out by various officers of our county medical societies in statements in their local press. For instance, Dr. Edwin MacDonald Stanton, chairman of the legislative committee of the Schenectady

County Medical Society, is quoted as saying in an interview in the *Schenectady Gazette*

"We wish to make ourselves clear on this question. Neither the American Medical Association nor its constituent bodies in this state nor any other society in the country of its kind has ever opposed any actuarially sound and basically honest method of insuring groups, no matter how large or small, against the hazards of medical costs

"The experience in Schenectady may be taken as a typical example of the attitude of the medical profession. This is one of the most highly insured communities of its size in the United States. The General Electric Mutual Benefit Association is an admirably planned and conducted form of medical insurance and has always had the full approval of the medical profession"

In addition, it was pointed out that the Schenectady teachers' hospital insurance plan was probably the first to be put in actual operation in the United States. It antedates the Texas plan, which is usually cited as the first in America, by four years and it was planned by, and the actuarial work for it done by, the chairman of the insurance committee of the county medical society

"At the same time, the American Medical Association and practically all of its state and county constituent organizations have for many years constantly disapproved of many insurance proposals, some of which have amounted to pure rackets and many of which have been financially unsound schemes originating in the wishful thinking of well-meaning individuals"

Suit May Be a Cause Célèbre

The same point is well elucidated by Dr Joseph Wrana, president-elect of the Queens County Medical Society, in an interview in the *Jamaica Long Island Press*

The Queens society has no objection to legitimate group practice, Dr Wrana said, "provided that a valid third party, a lodge or large company for instance, brings doctor and patient together. This is accepted as ethical by the American association

"But medical ethics forbid an association to name specific doctors to whom members must go. Such complaints are not new in our profession. Hitherto they have been ironed out within the medical association. This is the first

time the government has stepped in without first consulting the American Medical Association"

"The right of the patient to choose his own physician is the fundamental issue in this case," Dr Wrana stressed

'New York State workmen's compensation law recognizes this right

"The association can find adequate defense in the Wagner Labor Relations Act provision. It is regrettable that the government has interfered in something the medical society should settle within its profession

"The issue is not one of fees or merit or skill of specific doctors but the right of a patient to choose his physician, a right this health association is alleged to have denied," Dr Wrana continued

Two groups recently were suppressed by the Queens Medical Society, Dr Wrana recalled

"These organizations, managed by lay people, solicited practice for certain doctors. They charged members an annual fee of \$6 or \$7 and gave them a book or simple home remedies and the names of several physicians, who treated the patients merely for the cost of medicine they furnished

"Doctors engaged in group practice are not usually of the better type," Dr Wrana said.

Some men of merit, when convinced of the 'shady' character of the work, drop it."

Most group associations give inadequate service and injure the medical profession by encouraging fee cutting wars, investigation has revealed, according to Dr Wrana

"We oppose 'shady' associations which solicit practice for particular physicians," Dr Wrana declared. "We expel doctors who persist in serving such groups. Medical boards of local hospitals cooperate by dropping such expelled members from their courtesy staffs and by barring them from the use of hospital facilities"

All this is well-worth keeping in mind if the administration is going to harry the medical profession from court to court in a suit that may become a *cause célèbre*, and if it is planning to dot the country with

Group Health Associations" like the one in Washington. So far the District of Columbia doctors are holding the pass with splendid gallantry and dogged courage

Whose turn will come next?

"Have you been to any other doctor before you came to see me?" asked the grouchy doctor

"No, sir," replied the meek patient. "I went to a druggist"

"You went to a druggist!" exclaimed the

doctor. "That shows you how much sense some people have! You went to a druggist for treatment! And what idiotic advice did the damphool druggist give you?"

"He told me to come and see you," replied the patient—*S F and P C Druggist*

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers

REVIEWED

Clinical Chemistry in Practical Medicine. By C. P. Stewart M Sc and D M Dunlop M D Second edition Duodecimo of 372 pages, illustrated Baltimore William Wood and Company 1937 Cloth \$4 00

Pharmaceutical Latin. For Pharmaceutical, Medical, Dental and Veterinary Students and Practitioners By Jacob S Dorfman Second edition Octavo of 146 pages Philadelphia Lea & Febiger 1938 Cloth \$2.00

Tuberculosis Among Children and Young Adults. By J Arthur Myers MD Second edition. Octavo of 401 pages illustrated Springfield Charles C. Thomas 1938. Cloth, \$4 50

Diseases of the Thyroid, Parathyroids and Thymus. By André Crotti M D Third edition thoroughly revised and enlarged Quarto of 1229 pages illustrated Philadelphia Lea & Febiger, 1938 Cloth \$20.00

Functional Activities of the Pancreas and Liver A Study of objective methods for the estimation of function levels in health and disease. By Charles W McClure M D Octavo of 318 pages, illustrated New York, Medical Authors Publishing Company 1937 Cloth, \$3 50

Physiological Chemistry of the Bile By Harry Sobotka. Octavo of 202 pages illustrated Baltimore Williams & Wilkins Company, 1937 Cloth, \$3 00

This book is an effort on the part of the author to survey the present knowledge of physiological pharmacological and pathological facts concerning bile acids, the origin of bile secretions, its quantity and its composition under normal and pathological conditions. The task is especially indicated because at present no satisfactory correlation exists of the data on this important secretion of the body. The topics covered include the presentation of the mechanism of bile secretion a discussion of the normal quantity as well as the known factors altering this amount. The organic as well as the inorganic composition of the bile is reviewed and the influences that modify its composition. In this the bile acids receive the major part of attention although lipids and the other organic constituents are also covered, with the notable exception of the biliary pigments which are intentionally omitted by the author. The

The Radiology of Pulmonary Tuberculosis By J E Bannen MB Octavo of 156 pages illustrated Baltimore William Wood and Company 1937 Cloth \$4 50

The Rheumatic Diseases. A Course of Lectures arranged by the Medical Staff of the St. John Clinic and Institute of Physical Medicine Edited by Sir Leonard Hill MB and Philip Ellman M D Octavo of 270 pages illustrated Baltimore William Wood and Company 1938 Cloth \$4 00

The Psychology of Speech. By Jon Eisonson Octavo of 280 pages New York F S Crofts & Company 1938 Cloth, \$2.25

Essentials of Obstetrical and Gynecological Pathology with Clinical Correlation. By Marion Douglass M D and Robert L. Faulkner, M D Quarto of 187 pages illustrated St Louis The C V Mosby Company 1938 Cloth \$4 75

Internships and Residencies in New York City 1934-1937 Their Place in Medical Education Report by the New York Committee on the Study of Hospital Internships and Residencies Jean A. Curran M.D., Executive Secretary Octavo of 492 pages New York, Commonwealth Fund 1938 Cloth \$2 50

REVIEWED

important problem of gall stone formation is also presented in discussing the composition of bile. The significance of bile acids in the feces, urine, blood and lymph are shown although unfortunately the available knowledge is sketchy. The effect of the bile acids upon enzymes, micro-organisms is carefully discussed. The question of the adverse action of bile acid upon some of the micro-organisms is presented. The reactions of the heart blood pressure in testinal reaction and metabolic changes due to bile acids are also included.

In the opinion of the reviewer this book suffers from the slight defect of citing many references without a full attempt to evaluate the validity of the experimental methods used in gathering this data. The book makes one aware of the need of a more comprehensive experimental approach to the problem of the physiology and chemistry of the bile. An excellent set of references which occupies 48 pages of a total of 192, helps one to form a background in such an undertaking.

ALBERT E. SOBEL

The Business Side of Medical Practice. By Theodore Wiprud. Octavo of 177 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937. Cloth \$2.50.

The title does not cover the contents of the book, which includes some 50 pages out of 150 of suggestions on writing, speaking and other matters.

The suggestions made on office management, records, etc., are well expressed and the book has a comfortable brevity. It can be recommended for the objects for which it was designed.

WALTER D. LUDLUM

Concepts and Problems of Psychotherapy. By Leland E. Hansie, M.D. Octavo of 199 pages. New York, Columbia University Press, 1937. Cloth, \$2.75.

In a compact volume the author endeavors to present the many-sided problems arising in connection with the nature and therapy of the mentally and neurotically ailing. The first and by far the largest chapter is devoted to psychoanalysis. The next chapter discusses Meyer's psychobiology. Finally, the theories of Adler and Jung are briefly sketched. The author has done his work exceedingly well.

Though containing no new ideas or concepts, it gives an able resumé of developments in psychiatric thought. The imposing structure which psychoanalysis has reared is subjected to a lengthy discussion of its fundamental tenets, the principle of repression, the unconscious, the ego, the super-ego, transference, sublimation, etc. The Oedipus situation and the whole train of phenomena which are subsumed under the heading of sex development are given ample space.

As to psychobiology, it is not a new concept, but has been brought forward with telling effect, in this country by Adolph Meyer. One is struck by the tremendous amount of labor that is required to obtain a history of a patient's life. In order to make psychobiologic treatment effective it is essential that we take cognizance of all the minutiae of the daily life and activities of the patient and of his environment, and artificially create for him an environment which is to be regulated by doctor, nurse, social service and other entourage. These are to be changed if they do not harmonize with the patient.

One fears that the physician may actually lose himself, and forget about his problem in the maze of conflicting cross-currents which make up an individual's life. One naturally is inclined to feel that the solution to the dementia precox problem is nearer home than he imagines, only, we do not seek it in the right direction.

JOSEPH SMITH

Medicine for Nurses. By W. Gordon Sears, M.D. Second Edition. Duodecimo of 435 pages, illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$3.25.

This book succeeds in its aim to give a fairly comprehensive account of the more common diseases "laying stress on the signs and symptoms which the nurse can observe for herself." The syllabus laid down by the General Nursing Council in London has been covered. New material in this edition includes the oxygen tent, continuous drip transfusion, acute dilatation of the stomach, causes of sudden death, derivation of words, and poisoning.

It is a well-written book, and the selection of facts presented seems particularly good.

WILLIAM E. MCCOLLOM

Manual of Clinical and Laboratory Technique. By Hiram B. Weiss, M.D., and Raphael Isaacs, M.D. Fifth edition reset. Duodecimo of 141 pages, illustrated. Philadelphia, W. B. Saunders Company, 1937. Cloth, \$1.50.

This is a new edition of a manual prepared primarily for clinical laboratory students and the correlation of clinical and laboratory work at university hospitals. Beyond such specific usage, it is an exceptional reference guide for the newer tests, contains gross details of more common clinical laboratory procedures, and summarizes data perhaps of more specific interest to the interne than to others. It has major value for the technician in the large number of more recent procedures infrequently contained in such handy form. The recent methods given are all of good clinical usage, and are rarely found at the present time within one cover. The practicing clinician might wish the handbook for this feature alone.

IRVING M. DERRY

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MANDELIC ACID THERAPY

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and Bellevue Hospital*

Despite progressive improvement in medicinal antiseptics of the urinary system, the search is still on for a bacteriocidal agent which will be regularly satisfactory in the combat of the usual nontuberculous urinary tract infections. During the past three years notable advances have been made in this field by the introduction of mandelic acid compounds and, most recently, para aminobenzene sulfonamide known commercially as sulphanilamide or prontosil. Each of these medications will produce clinical results in urinary infections which are strikingly superior to any heretofore obtainable by oral chemotherapy. The employment of the sulphanilamide compounds is perhaps the more fascinating because the modus operandi is unknown but my brief presentation here will be concerned only with the assigned subject—mandelic acid therapy.*

Mandelic acid therapy is the illustrious direct descendant of the ketogenic dietary treatment of urinary infection.

*Accumulating observations on sulfanilamide therapy show that its indiscriminate and unsupervised employment is not only unwise but dangerous. Pharmacists should be forbidden to sell these compounds over the counter without prescription. Physicians should indicate that the prescription is unrefillable. Although mandelic acid therapy has its limitations, its margin of safety is greater than that of the sulphanilamide compounds.

The discovery and application of the therapeutic mechanism common to each is historically interesting. In 1931 Helmholz¹ noted that the urine of an epileptic child in therapeutic ketosis (ketogenic diet) failed to show bacterial clouding after standing for a week in a warm room. Investigation disclosed the bacteriocidal property of ketone urine when the hydrogen ion concentration (pH) is less than 5.5. Fuller² discovered the important acidifying factor in ketone urine is levorotatory beta-oxybutyric acid and when the concentration of the last is 0.5 per cent or greater and the pH level is below 5.5, the urine is not only bacteriostatic but commonly bacteriocidal.

During an investigation to obtain an organic acid which would be excreted in the urine and the action of which would be like that of B-hydroxybutyric acid, Rosenheim³ hit upon mandelic acid. He was the first to employ mandelic acid clinically—and with notable success. Mandelic acid is a pure white crystalline hydroxyacid represented by the chemical formula $C_6H_5 \cdot CHOH \cdot COOH$. Following ingestion it is excreted unaltered in the urine. Like B-hydroxybutyric acid mandelic acid is bacteriocidal in the urine only in a concentration of 0.5 per cent or greater and when the urinary acidity is pH 5.5 or greater. In most instances of failure to

sterilize the urine by mandelic acid therapy, it will be found that the conditions just mentioned have not been fulfilled. The concentration may be inadequate because of (1) inadequate dosage or (2) renal failure to excrete. Mandelic acid in large doses is a renal irritant, which may account in some instances for a lowered output of the acid or the kidneys may already be impaired when the medication is given. An inadequate urinary acidity is a frequent cause of failure but as a rule is readily rectified by the auxiliary administration of a strong acidulant such as ammonium chloride, calcium chloride or ammonium nitrate. Failure to keep the urine sufficiently acid through neglect of a constant check on the urinary pH is doubtless a commoner cause of failure than inadequate mandelic acid excretion. Attention will again be directed to these factors for without their close observance, failure is almost certain to replace possible success with the method.

Indications for Mandelic Acid Therapy Mandelic acid is indicated in the treatment of the usual nontuberculous infections of the urinary tract. It has been ineffectual against tuberculous invasions, I have found no record of its use in the rare infestations such as bilharziasis, actinomycosis, etc.

During the therapeutic period the urine must be carefully and periodically checked for evidence of renal irritation (albumin, occasionally blood, casts) and if this is disconcerting, the medication must be discontinued. Yet it must not be stopped because of a faint trace of albumin or a relatively few scattered casts.

The pH should be determined twice daily so that sufficient acidulant may be given to keep the reaction below pH 5.5. Adults can be taught to control the last factor themselves and will report any unusual developments while taking the medication. The two indicators most commonly used now to determine an acidity greater than pH 5.5 are methyl red and nitrazine. Methyl red is red on the acid side of pH 5.5 and yellow on the alkaline side. This is used either as a methyl red test paper or as a solution, a few drops of which are added to the urine to be tested. I regularly em-

ploy nitrazine paper or nitrazine solution (Squibb) as this enables one to make a rapid approximation of the urinary pH. Nitrazine (sodium dinitrophenylazo-naphthol disulphonate) is sensitive to N/10,000 acid or alkali, its color is yellow at pH 5.0, mustard at pH 5, olive at pH 6, grey-blue at pH 7, and blue at pH 8. A color chart with pH 0.1 gradations enables one to estimate the urine titer with rapidity and an accuracy adequate for clinical application. A potentiometer gives the most correct estimation of the pH but its use is more desirable than essential.

Children develop acidosis readily and it is therefore usually wise to start them with a slightly less than average dose, and when mandelic acid therapy is employed in infants, the physician must be keenly alert to any unfavorable reaction—especially acidosis. Yet this does not contraindicate its use in the very young, I regularly employ it in children of all ages—the youngest to date was ten weeks old.

Contraindications Because mandelic acid is excreted unaltered in the urine and is a potent renal irritant, its employment is contraindicated when the renal function is impaired as evidenced by a phenolsulphonphthalein test, specific gravity fixation, etc. This irritant action is of special importance in patients whose impaired kidneys are still further injured by the acid and whose function may be alarmingly reduced. In such cases, not only is the urinary excretion lessened, but the mandelic acid continually ingested is retained in the body to produce acidosis. This course is even more rapid and severe when a strong acidulant such as ammonium chloride or calcium chloride is coadministered. A tender age is no contraindication (cf supra) to the employment of mandelic acid therapy and it may be freely administered to elderly patients whose kidneys are relatively unimpaired.

Medication and Dose Mandelic acid was first administered as a sodium salt (sodium mandelate) compounded of mandelic acid and sodium bicarbonate. Ammonium mandelate induces a greater urinary acidity and is the compound now most generally employed although other mandelate salts such as ethanolamine

mandelate have more recently been introduced. Ammonium mandelate is extremely salty and disagreeable to take, hence it is usually given as an elixir or a syrup yet I have fewer complaints when it is taken as a tablet (0.5 Gm each for adults, 0.25 Gm each for children). Ingestion of the medication is sometimes made more acceptable by the addition of licorice or chocolate flavoring.

The dose of ammonium mandelate that I employ in children ranges from two Gm per day in young infants to ten Gm a day at twelve years and given in divided doses three or four times a day, preferably after meals and just before retirement. Infants less than six months of age are given two Gm in twenty-four hours children six to twenty-four months old may be given two to four Gm., patients two to four years are given four to six Gm., and from five to twelve years, six to ten Gm. are given. Ammonium chloride is given in addition in sufficient amount to render the urine more acid than pH 5.5. Usually two or three Gm (30 to 45 gr) daily is sufficient in children but I have employed doses ranging from 7 Gm (10 gr) to 67 Gm (100 gr) per day. In any event, sufficient acidulant must be given to attain a urinary acidity of less than pH 5.5.

In adults the dose of ammonium mandelate is correspondingly greater than in children, nine to fourteen Gm (135-210 gr) with an average of twelve Gm, being given together with the necessary amount of acidulant to make the urinary acidity pH 5.5 or less. As a rule this means beginning with three to five Gm (45-75 gr) per day and varying the intake to meet the pH requisite.

Were the precaution more regularly observed, it would be unnecessary to direct attention to the fact that all alkalinizing agents such as sodium bicarbonate, magnesium hydroxid, citrus fruits, etc., must be avoided while one is attempting to achieve the urinary acidity requisite to successful mandelic acid therapy.

During the therapeutic period the fluid intake is reduced to 1200-1400 c.c. per day in an adult. One must be extremely careful about reducing the fluid intake of any child and I, therefore, say nothing

to the mother about altering this factor nor is the daily intake comparably reduced in my young hospitalized patients.

A daily or, better, a twice daily check of the urine titer is essential during the period of treatment with mandelic acid. These repeated studies guide one in the medicinal maintenance of the requisite acidity. They disclose evidence of renal irritation consequent to the medication and, extremely important, reveal clinical progress as indicated by diminution of bacteria and inflammatory products in the urine.

This therapy is usually effective in forty-eight to seventy-two hours, at least striking improvements will be noted in that time, and the treatment should be continued. If the urine cannot be sterilized (as evidenced by two negative cultures of catheterized specimens) in two weeks, the treatment should be discontinued for a week or ten days and then intensively resumed or a change to prontosil, for example may be made. If a second effort fails and the therapeutic requisites have been met, it is unlikely that further effort will be successful—at least until previously unrecognized associated etiologic factors such as obstruction, primary focal infection elsewhere, etc., are eliminated. If none of these factors can be proved to exist, change antiseptics.

A word is in order concerning the collection of specimens in the study and treatment of urinary infections. Bacteriologic study implies the aseptic collection of specimens. For this reason all females must be catheterized, even the youngest infants. With proper technique and by using only a soft rubber catheter which requires introduction under visualization, catheterization can be performed without injury in a female of any age. Once the catheter is introduced, a few c.c. of urine should be permitted to flow out before specimen collection is begun to carry away any debris which may have entered the catheter eye.

Clinical evaluation based on microscopic and bacteriologic examinations of voided specimens are misleading in females, no matter how vigorously the vestibule, introitus labia urethral

orifice, etc., have been cleaned Pus cells epithelial debris and bacteria washed into the specimen during urination interfere with an accurate conception of these elements in the bladder urine Repeatedly the writer has been asked to perform complete urologic examination in girls said to have "chronic pyelitis," the diagnosis being based on studies of voided specimens laden with pus cells, but in whom vesical catheterization has shown normal sterile urine

In the male the specimen can be satisfactorily obtained when the prepuce is well retracted behind the glans, the glans and meatus are thoroughly cleansed with an antiseptic solution such as oxycyanide or bichloride of mercury 1:500, and the patient passes a few c c before the voided specimen is collected in a sterile receptacle. If this cannot be properly carried out, the male also should be catheterized. The culture tube should be implanted with at least 0.5 and preferably one c c of the urine

Test of Cure

The patient should not be discharged cured until two negative cultures of properly collected specimens have been obtained. Although most sterile urine is pus-free at the termination of a non-tuberculous urinary infection, there may be scattered leukocytes in urine repeatedly sterile to culture. In other words, the bacteriologic culture rather than the absence of leukocytes is the all-important criterion of successful treatment. If this test of cure is observed the incidence of "recurrence" of urinary infection will be extremely low. Most clinical episodes commonly designated as recurrences of "pyelitis" are merely exacerbations of a smouldering asymptomatic and previously unrecognized or inadequately treated urinary infection. The exacerbation may have been induced by urinary obstruction, severe constipation, the acquisition of a focal infection elsewhere, or any of the usual predisposing etiologic factors in urinary infections. A plea is therefore made for correct (aseptic) collection of urine specimens when urinary infection is under study and treatment and also for at least two negative urine cultures as the test of cure.

Reactions

Cook⁴ reported nausea and vomiting in less than one per cent of patients receiving mandelic acid therapy at the Mayo Clinic and only ten per cent developed a mild diarrhea. My observations suggest that in general usage the incidence of such reactions is probably much higher. Yet there is no urinary antiseptic which may not provoke distressing enteric or vesical reactions—witness hexamine (urotropine), caprokol, acriflavine, pyridium, prontosil, ad infinitum. The irritant effect of mandelic acid on the kidney has been discussed. Hematuria may develop but is unusual.

The results are most gratifying in the usual bacillary infections. Experimentally, Helmholtz found that *in vitro* mandelic acid is most effective against *Escherichia coli* and *proteus ammoniae*, and less effective against *salmonella*, *aerobacter*, and *pseudomonas*. The last two organisms are most resistant of the common bacilli. It is known to be least effective against the gram positive cocci, notably *Streptococci* and *Staphylococci*. Still with rigid clinical control these infections may sometimes be eradicated. Moreover, *Streptococcus fecalis* has been found almost as vulnerable to the treatment as *B. coli*.

Published results of mandelic acid therapy suggest that with mutual diligence of the patient and physician, at least three-fourths of patients with uncomplicated urinary infection can be cured. Rosenheim⁵ cured seventy-one per cent of eighty-eight patients. Of thirty-seven failures, twenty-one had urinary stasis or obstruction, two could not be satisfactorily acidified. Carroll, Lewis, and Kappel⁶ reported fifty cases of urinary infection treated by mandelic acid. Of thirty-seven *B. coli* infections, twenty-seven were sterilized. But one of six cases of *B. proteus* were cured, none of the *Staphylococcus* infections were cured. Yet in a series of seventy-five patients reported by Cook and Buchtel⁴ managed with special care, the urine was sterilized in sixty-one cases or eighty-one per cent. In forty-one adults thus treated by the writer, twenty-two (54%) were cured as evidenced by two negative cultures of aseptically collected specimens. The

uncured patients nearly all suffered prostatitis or had poor renal function. In thirty four children I achieved success in twenty six or 76.4 per cent.

Mandelic acid escapes being the perfect urinary antiseptic by (1) being active only in a highly acid urine, (2) producing reactions in the alimentary tract, and (3) having its efficiency severely influenced by the renal function. Moreover, it may provoke renal irritation.

The causes of failure in mandelic acid therapy may be briefly summarized as follows:

- (a) Failure of patient to cooperate.
- (b) Inadequate dosage, in mandelic acid therapy homeopathic doses are doomed to failure.
- (c) Inadequate acidification, this is readily corrected.
- (d) Poor renal function this may be due to hydronephrosis, Bright's disease, chronic pyelonephritis, polycystic kidney, etc. Poor renal function may greatly reduce the quantitative output and excreted concentration of mandelic acid. The excretion of the accessory acidulant (e.g. ammonium chloride) is correspondingly diminished.
- (e) Unusual virulence of the invading organisms.
- (f) Residual urine, whether due to obstruction, neuromuscular inertia, or atony consequent to long standing infection may render bacteriologic cure difficult or require eradication of the residuum before the antiseptic can become effective. Stone, tumor or foreign bodies in the urinary tract may

likewise prevent urinary sterilization. Chronic prostatitis, by continually pouring infection into the posterior urethra, may keep the urine from being sterilized or may reinfect when cure apparently has been achieved.

(g) Inadequate period of treatment the medication should be given a trial of not less than one week and preferably ten days, unless individual idiosyncrasy prohibits.

Summary

Although the ideal urinary antiseptic is yet to be obtained, mandelic acid therapy marks a notable advance in this important chemical field. This treatment can be employed in most patients with the usual nontuberculous bacillary urinary infections, yet it has definite limitations as discussed under contraindications and also causes of failure. By close observance of the indications, contraindications, and technic as herein outlined, mandelic acid therapy may be expected to be successful in three out of four cases.

140 E. 54 St

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MD LICENSE PLATES

The Honorable Charles A. Harnett, Commissioner of the Bureau of Motor Vehicles has notified the Medical Society of the State of New York that he is prepared to set aside exclusively for practicing physicians special license plates bearing the designation "MD," followed by numbers up to 9,999. The Council has authorized the undersigned to work out with the Commissioner details to facilitate assignment of plates.

It will be necessary for those physicians in active practice—who wish such plates—to apply to their County Society Secretaries for certification to the Bureau of Motor Vehicles. Physicians who are not members of County Societies may also apply in the same manner.

The Commissioner will mail toward the end of the year an application blank, together

with instructions to each physician who applies and whose name has been certified by the County Society. The license plates will be mailed direct to the physician's home or office in time to be attached to the cars for the year 1939.

For the year 1939, there will be available 10,000 plates—sixty per cent to be issued from the New York City Office and forty per cent from the Albany Office. The County Society Secretaries should send list of the names of applicants to the Medical Society of the State of New York, 2 E. 103 St., New York City, not later than November 1, 1938—earlier if possible. No list should be sent to the Commissioner of the Bureau of Motor Vehicles.

AUGUSTUS J. HAMBRICK, M.D.

DAVID J. KALISKI, M.D.

CARCINOMA OF THE RIGHT HALF OF THE COLON

Diagnosis and Treatment

CLAUDE F. DIXON, M.D., *Rochester, Minn*
Division of Surgery, The Mayo Clinic

If a patient survives the removal of a carcinoma of the right half of the colon, his chance for permanent relief is much better than it would have been if the lesion had involved any other segment of large intestine. Pemberton and I reviewed the statistics on carcinoma of the colon at The Mayo Clinic and found that about fifty-five per cent of the patients who recovered following operation for radical removal of carcinoma of the cecum were alive five or more years afterward. This study included a review of many cases in which there was involvement of the lymph nodes. The prognosis of carcinoma of the colon is increasingly less favorable as the more distal segments of the colon are involved. The most unfavorable site is the anorectal region. It is difficult to say why the chance for permanent relief is better in cases of carcinoma of the cecum or right half of the colon than in cases in which carcinoma involves other segments of the large intestine. One reasonable explanation is that lymphatic spread of cecal carcinoma apparently does not in most cases occur early, and when it does develop, the involved lymph nodes are those in close proximity to the bowel. Resection of the affected segment, therefore, necessarily permits removal of the accompanying lymphatic strictures. It has been my impression in the past that obstructive carcinoma of the colon enhances metastasis. If this observation is correct, the spread of carcinoma of the right half of the colon might be expected to occur late because the liquid content of this segment of bowel is not conducive to early obstruction as is frequently seen in the left half of the colon where the content is semisolid in character.

Certain important clinical features of carcinoma of the right half of the colon may be satisfactorily emphasized by briefly citing a case history.

Eighteen months ago, there came under my observation, a surgeon aged sixty-four years. For the previous two years his health had been under par. The difficulty had been characterized by weakness of increasing intensity and an unexplained anemia. He had had many careful examinations and the diagnosis had varied from pernicious anemia to idiopathic secondary anemia. Intensive treatment, consisting of the administration of liver extract and compounds of iron had been of no avail. His teeth had been extracted because of a questionable pyorrhea which had been thought to be a possible focus of infection. There had not been any abdominal discomfort and the intestinal function had been practically normal. There was no history of melena. When the patient was examined at the clinic a mass could be felt in the right lower abdominal quadrant on deep palpation and it must be said that the diagnosis was perhaps much less difficult then than at any previous time during the course of the disease. Roentgenologic examination revealed the presence of a tumor in the cecum, which was thought to be of a malignant nature. Exploration through a right paramedian abdominal incision substantiated the roentgenologic findings. The right half of the colon and terminal portion of the ileum were removed. Recovery followed. The patient has continued his professional duties. His blood picture was normal and there was no evidence of recurrence or metastasis when this paper was written.

Why was the correct diagnosis not made earlier? Previous roentgenographic studies of the gastrointestinal tract had not revealed any abnormality, therefore, the presence of malignancy was thought to have been ruled out. Weber has emphasized that carcinoma of the cecum may be easily overlooked if the site of the lesion is the head of the cecum. In the case under discussion, the lesion was so situated. Weber also states that unless considerable care is exercised dur-

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ing the administration and study of the barium enema, the portion of the cecum below the level of the ileocecal region may not be properly filled and the presence of an existing lesion may be overlooked.

Anemia of a secondary type, which so commonly accompanies malignant lesions in the right half of the large intestine, is thought to be due to the following causes (1) the absorption of perverted substances from the ulcerating tumor, and (2) a constant loss of blood from the same region. Macroscopic blood is not a common finding in the presence of such lesions but microscopic examination of the stools frequently will disclose blood. Anemia rarely accompanies carcinoma occurring in other organs, provided the lesion has not metastasized. Carcinoma of the breast, for example, may be so extensive locally as to be inoperable and yet, as a rule, there is no alteration in the blood picture. Carcinoma of the fundus of the uterus may be far advanced but cause no alteration in the erythrocytes. Therefore, the anemia associated with malignant tumors of the cecum and right half of the colon must, it seems, be explained on the basis of some alteration in the physiologic function of that particular segment of the intestine.

Occasionally, carcinomatous lesions of the right half of the colon produce rather bizarre symptoms. Many are accompanied by a symptom-complex that leads to the suspicion that cholecystic disease or peptic ulcer is present. Recently I operated on a patient with such a history who had a cancer which involved the hepatic flexure of the colon. Both cholecystic disease and duodenal ulcer had been previously diagnosed and the symptoms seemed at first to warrant such an impression. A marked inflammatory process surrounded the tumor and had caused its attachment to the retroperitoneal portion of the duodenum. Whether or not this attachment could account for the symptoms is a matter of conjecture; however, the symptoms subsided promptly following resection.

Bargen has often referred to a group of cases in which carcinoma of the cecum was accidentally discovered by the patient. Suffice it to say that in such in-

stances there is little or no history of an intestinal disorder, and in some cases there is only slight alteration of the normal blood picture.

Polypoid malignant lesions of the cecum frequently produce a cramping sensation, which is apparently due to intussusception or a tendency thereto. This telescoping of the bowel is thought to be caused by an attempt to evacuate the tumor; therefore many lesions of this type, because of the discomfort they produce, are diagnosed rather early.

There is considerable difference of opinion regarding the surgical management of carcinoma of the right half of the colon. Some writers feel that an exteriorization operation, as advocated by Lahey is the procedure of choice. Others favor an ileocolostomy with subsequent resection of the involved segment of bowel. While it is not my intention to advocate a particular type of operation for the removal of tumors involving the right half of the colon I am of the opinion that if one has obtained satisfactory results with any one of these methods there would seem to be little reason for discarding it and accepting a different plan which is perhaps somewhat foreign to one's technic. My experience leads me to believe that some lesions are managed best by operation in two stages while others can be cared for satisfactorily by a single stage procedure.

It is my custom to perform an ileocolostomy in those cases in which the patients are rather anemic and debilitated and of advanced years and carry out removal of the diseased segment two to six weeks later. I employ the one-stage operation in those cases in which the general condition of the patient appears good and also in those cases in which the lesion has perforated. Perforation frequently imposes a high operative risk but in such cases, if only ileocolostomy is performed the infection surrounding the perforation may continue to progress and prove fatal. I have seen cases of perforating cecal carcinoma in which the patients came to necropsy following ileocolostomy. The cause of death was thought to be an extensive infectious process between the peritoneal leaves of the mesentery. In such cases it seems reasonable that the risk should

CARCINOMA OF THE RIGHT HALF OF THE COLON

Diagnosis and Treatment

CLAUDE F DIXON, M D, *Rochester, Minn*
Division of Surgery, The Mayo Clinic

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tion due to trauma to the retroperitoneal portion of the duodenum. Frequent gastric lavage or, better still, an indwelling duodenal tube invariably alleviates the condition.

Transfusions of blood given postoperatively are often of inestimable value. The patient who is just "not doing well" on the fifth or sixth postoperative day and who does not reveal any tangible evidence as to the exact nature of his difficulty will often show satisfactory progress following the administration of 500 c.c. of blood. It is our custom at the clinic to group the blood of all accompanying relatives of the patient at the time the patient enters the hospital. This has proved to be of considerable economic importance to the patient.

The administration of fluids by mouth postoperatively is a mooted question. When one considers that the gastric secretion alone amounts to one or two liters a day, it seems reasonable that the intake of one or two ounces of liquid each hour would cause little or no disturbance and it is of great comfort to the patient. On my service, I allow postoperative patients to have fluids by mouth, after vomiting has ceased. One-half ounce of fluid may be taken each hour during the first day, the amount may be increased to one or two ounces each hour on the second postoperative day, from that time, liquids, light cereals, and so forth are allowed as tolerated.

The time-honored practice of giving an enema on the third postoperative day has been discontinued on my service. I feel that the procedure is definitely contraindicated. I have seen many cases in which it increased or even produced abdominal distention. Records are available which show marked elevation of the temperature and pulse rate within a few hours after administration of the well-

known postoperative enema. In some instances, violent attacks of vomiting have been precipitated. If the patient has a tendency to worry about defecation a retention enema may be given. I have found that the introduction into the rectum of five or six ounces of warm mineral oil will invariably produce satisfactory results and will not disturb the function of the gastrointestinal tract.

Embolic phenomena must always be looked upon as a possible foreboding of postoperative tragedy. As a rule, such catastrophes occur on the tenth or twelfth postoperative day, at a time when temperature and pulse are likely to be below normal. I have reasoned that for the most part emboli develop in cases in which the metabolic processes have appeared to be below normal. In my rather limited surgical experience I have observed only two cases of fatal pulmonary emboli. Whether the method of postoperative management has lessened the incidence of this complication, I am unable to say, but I believe that the treatment I have employed, which is perhaps without scientific background has been of some value. It consists of administration by mouth of six grains (0.4 Gm.) of desiccated thyroid gland in divided doses each day. Obviously, this medication is contraindicated in those cases in which the temperature and pulse rate are high. In the suitable cases, treatment is begun on the fourth or fifth day after operation (usually at the time when the patient's pulse and temperature have reached normal) and is continued for five or six days, or until the patient is able to be up and around. Its value may be imaginary but since the incidence of emboli among patients on my service has been so extremely low, I feel justified in continuing the treatment.

THE MAYO CLINIC

IT'S THAT GIRL AGAIN

A colleague informs the *Rocky Mountain Medical Journal* that he has been victimized by the old magazine subscription racket. An attractive and rather familiar young woman desires renewals on your subscriptions—for furtherance of her education, and all that. She talks our language and seems to know her way around.

Plump, dark eyes southern accent, and

personality plus. She collects on the spot. And her receipt if any is not very official. So look out, Doctor she's working our territory—and boys will be boys!

Plans for a \$125,000 hospital in eastern Putnam County have been postponed for at least one year.

THE TREATMENT OF DIABETES

Use of Protamine and Crystalline Insulin

HENRY J. JOHN, M D , *Cleveland, Ohio*

When insulin was released on the market fifteen years ago, this meant a new lease on life to diabetics at large. It enabled them to get on more livable diets so that for the severe diabetics, life was not so hard and so trying as before the insulin era. They had no longer the need of adhering to submaintenance diets which in turn meant an unproductive and dependent life. Once more they were able to take their place among the ranks of their fellow men and compete with them. I recall one case especially. A young married man with a wife and a baby was kept on a starvation diet for several years until insulin came in. He was so thin and weak that no type of exertion was possible. He was 100 per cent dependent. Then, when insulin came in, he blossomed out like a spring flower, went to one of the resorts on the Eastern shore in real estate business, massed up a fortune in a few years and provided well for his family. Such examples were many and it was the insulin which made such a transformation possible. It was no wonder that the whole world became enthusiastic about it and hailed it as a "manna" which once came down to the starving Israelites.

Insulin did more than this, however, for one group of diabetics. This group were the diabetic children. Here it was where a true miracle occurred. Those who saw the picture of diabetic children in the preinsulin era will well remember the thin, emaciated, whining little skeleton-like children, crying from hunger, their family suffering with them, without outlook for future, without possibility of relief, only death could release them from this predicament, we could not. About all we medical men were often able to do was to prolong their suffering through starvation. Then, when insulin came in, it meant life to these children. We can well speak of the discovery of insulin as the zero hour for the diabetic children. From there on they really began to live

Not merely to exist, but actually to live, to develop like normal children, to accomplish things like normal children, to go to college, graduate usually with honors and then to take their place among their fellow men in equal competition and succeed.

This part of the picture has always seemed to me like a fairy tale. In fact it is a true medical fairy tale full of hope and of encouragement. Joy and song replaced tears and sorrow and if you want to see this at its maximum, just drop over to my camp for diabetic children during the summer and see the marvelous transformation of these children, full of fun and vitality, playing, singing, competing with each other. No one not knowing that this is a group of diabetic children would ever suspect the fact.

With the release of insulin our medical problems with the diabetic were not at an end. It was no philosopher's stone, suddenly discovered and ending our medical problems by any means. Our work then just began, for we had a lot to learn about it, its use and misuse, its limitations, the best dosages and their distributions in various cases, its dangers.

The past fifteen years have been spent just in doing this very thing. We have learned much about its usage. We know now that two small doses of five units accomplish more than one dose of twelve to fourteen units, we know that some people are very sensitive to insulin and prone to reactions while others are quite insensitive to it, that some people will have an insulin reaction when their blood sugar is quite high while others will have no reaction with a blood sugar of thirty Mg per cent, we know that during infection we do not get the same action from insulin as when no infection is present and that we may have to double or treble the dosage during infection, we know that if the insulin dosage is inadequate the patient becomes slowly

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and progressively a more severe diabetic, we know that in cardiacs and hypertension cases insulin overdosage is not without danger, we know that toward the end of pregnancy the insulin need of the mother is likely to be diminished due to the insulin supply from the growing fetus, etc. All these things we have learned from observation and experience and we are still learning many other important facts about its use.

A little over a year ago, reports came from the Danish workers—Hagedorn and his group—about a modified insulin, which they called protamine insulin. All their work was an attempt to slow up the absorption of insulin when injected so that the gradual liberation of the insulin into the blood stream could prolong its action over a period of many hours. In this they succeeded in a clever manner by the combination of protamine with regular insulin. Regular insulin exerts its action for four to six hours. Their new preparation more than doubled this period. This certainly was a decisive step forward for it meant fewer injections per day for the patient. This protamine insulin was improved upon in this country first by the addition of calcium, later by zinc, so that at present we have on the market protamine zinc insulin which is manufactured in this country by several firms and is all standardized equally. The amount of zinc added is very small. At present it is on the market merely in the U40 concentration which is a decided handicap, but before long U80 will be available as the clinical trial has been going on now for several months.

The working out of protamine zinc insulin is really a tremendous step forward. There are two main advantages from it. 1. The number of injections per day is reduced. 2. The blood sugar level throughout the twenty-four hours is more stabilized—almost at a level in most cases. The patients do better on it and they feel better, a point which is most marked in cases who had to take several large doses of insulin per day and who consequently would have a great deal of fluctuation of the blood sugar level up and down from extreme hyperglycemia down to hypoglycemia levels that bring on reactions. This particular group of patients

is receiving the most benefit from the new insulin.

A year ago this summer when I began to work with it more intensively with the children at the camp, I was much impressed and gladdened. Children who were taking three and four doses of insulin per day, I was able to carry on one dose a day. You can readily imagine what a relief it was to these children whose number of injections per year I was able to reduce from 1,460 and 1,095 to 365 a year. There has been one disadvantage, however, for now we gave but one large dose a day and we have only U40 concentration available. This meant that large quantities in bulk had to be injected, which is somewhat distressing, but as already mentioned, this will soon be eliminated as soon as U80 protamine zinc insulin is available.

This then is an improved medicament in our hands. What, then, have we learned thus far about its uses? How should it be used?

When I get a new case of diabetes, I always place him first on insulin. (I assume it is thoroughly understood that the use of insulin has not eliminated the necessity of proper diabetic diets. These are just as important today as they were in the preinsulin era, in fact more because with a fixed dosage of insulin which now acts over a twenty-four-hour period, we must provide adequate food for this insulin to act against. The thing which has happened in the past few years is that we have learned that patients on more liberal carbohydrate diets properly controlled with insulin do better than patients on meager carbohydrate diets. I use in adults at present a diet something like this: Carbohydrate 180, Protein 80-100, Fat 80-120 Gm. This makes quite a liberal diet, easy to plan and enabling a person to work on it as it gives him quite a lot of energy.)

I start, then, every new case on insulin. The reason for this is expediency. With the use of insulin in the hospital of course, we can get the blood sugar down to normal rather quickly. By this we save time and in turn save the patient unnecessary expense. As soon as the blood sugar has reached normal I place the patient on about an equivalent dosage of protamine zinc insulin. The blood

sugar is checked daily before each meal and the twenty-four-hour urine sugar output estimated. The twenty-four-hour urine sugar provides a guide as to how much of the carbohydrate taken in daily is used and how much is lost. If more than ten Gm is excreted this means that inadequate amount of insulin is given and the dose is increased. Now comes the question which dose to increase, the morning, noon or evening dose? It is here where the three blood sugars a day render a definite help—they tell me which particular dose is inadequate and which is more than it ought to be, then I correct the particular dose which needs correcting without groping about in the dark and wasting the patient's time and money.

There will be objections raised against taking so many bloods. The objections are not valid provided proper technic and dexterity is used. I use a 26–27 gage needle, one-half inch long, a regular hypodermic. This is almost painless. One needs but 1.25 to 1.5 cc of blood for proper estimation of blood sugar with macro-method. I have never found a patient to object to this especially when they understand why it is done. In seven to fourteen days the problem of any diabetic can be solved and his routine properly worked out.

When we have replaced the twenty-four-hour dosage of insulin with an approximately equivalent dosage of protamine zinc insulin, as one dose a day, thirty to sixty minutes before breakfast and then watch the blood sugar level throughout the day and the 24-hour urine sugar output, we know from day to day whether we need to diminish the dosage or to leave it the same. We know whether the patient has a marked hypoglycemia or even reaction toward the morning or whether it is controlling him properly and we proceed accordingly.

The question of meals plays a considerable part here. With insulin it was more or less customary to divide the twenty-four hour food into three equal meals. With protamine zinc insulin I feel that a better way is to use a light breakfast and lunch and a heavy dinner. The reason for this is obvious. The protamine zinc insulin is slow in acting. If we give a heavy breakfast we bring about a marked hyperglycemia which is not de-

sirable. A heavy lunch will cause more hyperglycemia and this in turn means an increased excretion of sugar—bad features. By supper time, the protamine zinc insulin is in full action and thus the evening meal is taken care of. For this reason I feel that a light breakfast and lunch, a heavy dinner and a small bite at bedtime is preferable.

Such a distribution in the diet is preferable also for other reasons. Just because a person becomes suddenly a diabetic, I see no reason why we should attempt to turn his life upside down. He is still the same Mr Jones or Mrs Smith that he was before he became diabetic. For forty or fifty years he has been having grapefruit, toast, and coffee for breakfast and was happy on it. Is there any reason why his life's habit should be upset? Let him continue since it falls in perfectly with our physiological scheme. Let him have the same breakfast and the same light lunch. This I have often followed out even on the insulin routine. It applies especially to the many foreign groups with their special eating habits. The less we upset their social routine, the better result we usually achieve. There is a limit as to how far one can go in this, of course, and a certain amount of discrimination has to be used. With children I learned a lot from observation at the camp. They want a heavy breakfast, in fact they want a heavy meal each time they eat. They require a lot of food, much more than the grown-ups, hence here too I found that a slight snack half way between breakfast and lunch, lunch and dinner, and at bedtime works for much contentment.

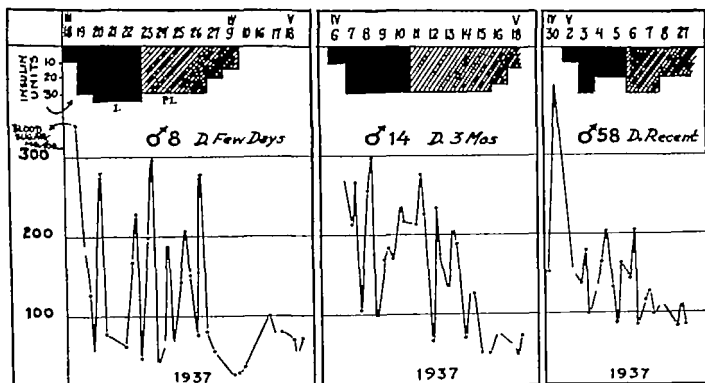
When we come to the use of protamine zinc insulin I feel that unless we have succeeded in reducing the dosage to one dose per day, we have not really accomplished much and we are not helping our patient. Even one injection a day is bad enough—at least we would think so if we had to take it, year in and year out. Consequently all my efforts have been bent on this for the past year and I must say with excellent success. Not more than one per cent had to take two. I think that we often are content doing things in a certain way, just because we have been told, without inquiry as to whether some other way may not do as well. It is natural

Thus from the start I attempted to manage these diabetics on but one dose a day. This dose has been given in the morning consequently the lowest blood sugar comes during the night—toward morning. Thus when we start with a low blood sugar in the morning, and don't overwhelm the organism with a big meal, there isn't much rise in the blood sugar. In a few hours, the protamine zinc insulin

300 down to 36. After five days, I switched over to protamine zinc insulin, five units less and the fluctuations continued for four more days, then there is a straightening out of the blood sugar level which continues on repeated examinations over a period of two months.

One might try to explain this on the recency of diabetes. When one starts treating a recent case of diabetes energetically, we get often such a picture.

CHART I



is exerting its action and we don't disturb this equilibrium by a heavy lunch for it will take care of a light lunch. By dinner time the insulin is at its best and able to take care of a good meal and the patient does well. It is all a question of balance for the injection of insulin does not do what a pancreas does in a normal individual. In the normal we have no steady outpour of insulin from the pancreas into the blood stream. It goes out as it is needed and the amount that is needed. Exogenous insulin is not under such a fine control. In a diabetic we have not only the insulin we inject to deal with but also his own endogenous insulin, what is left of it, and no longer under the original fine adjustment. This, of course, complicates our problem.

In Chart I, the first case, you can follow the progress of a little boy eight years of age, who just recently became diabetic. He was put on insulin as much as thirty five units a day in divided doses, and you can follow the fluctuation of the blood sugar from

The next case in Chart I is another boy fourteen years of age. He had diabetes for a few months and was taking insulin when I first saw him, but was not getting adequate insulin for his needs. After five days on insulin I changed to an equal dosage of protamine zinc insulin. There was a steady drop of blood sugar level so that on the fourth day it was hovering around normal, morning noon and evening. He was discharged from the hospital on the eleventh day on twenty five units of protamine zinc insulin and when checked a month later I was able to reduce it to fifteen units a day. He has enjoyed a perfectly smooth progress and a continued control on a steadily decreasing dosage.

The last case on Chart I is that of a man fifty-eight years of age, also a recent diabetic. The story is much the same as in the preceding two cases—one dose of protamine zinc insulin a day and a steady progress and a gradual diminution of insulin.

Such a picture as these three cases represent was not a novelty when we used insulin. The big factor responsible for improvement is the recency

of the diabetes—where by a judicious lifting of the load off a lagging pancreas we give it a chance to recuperate which it does. It is the early and the adequate treatment of diabetes which counts! The time to treat diabetes rigidly is when it is first discovered and not wait before insulin is used until the patient has lost his best chances. *Protamine zinc insulin just makes the problem for the patient easier*

diet and a heavy dosage of insulin I have projected her record (Chart II, second case) over the past five years so that you could see the wide blood sugar fluctuations in a severe diabetic of twenty-seven years' standing and taking as much as fifty-eight units of insulin per day. I think that the transformation of the blood sugar level in this severe case following the use of protamine zinc insulin is about as spectacular a thing as I have seen, for such a reasonably steady

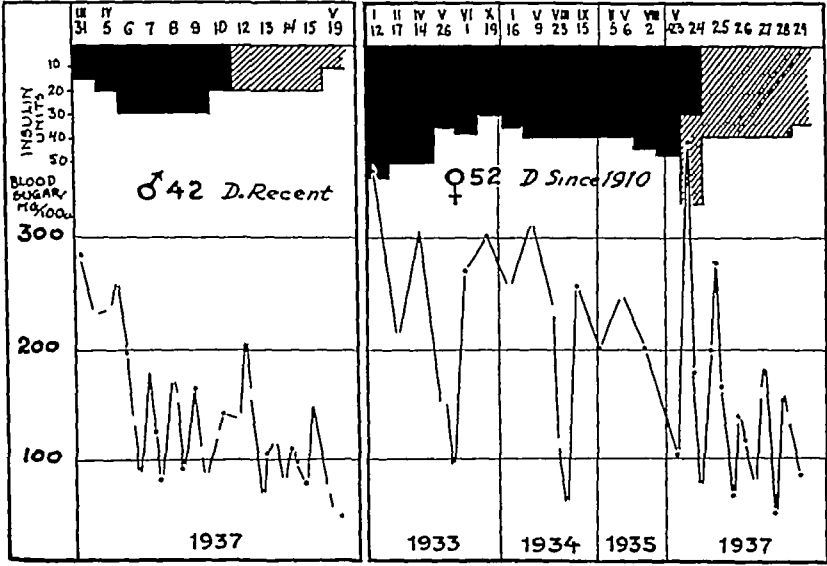


CHART II

In Chart II, the first part represents the progress of a man forty-two years of age also a recent diabetic, outside of the ten days in the hospital the man has been working steadily. Here, too, we can note the stabilized blood sugar at a low normal level and remaining so on but ten units of protamine zinc insulin.

While the previous cases were recent cases of diabetes and for that reason mild, the next case I have picked purposely in contrast, one of the very severe diabetic and of long-standing. She is now fifty-one years of age with diabetes for twenty-seven years. When I saw her originally in 1923 she had had diabetes for thirteen years and has gone through hectic experiences of acidosis, comas, etc. At that time she was so emaciated (weighed only 86 pounds) and so weak that she had to be brought to Cleveland on a stretcher. She could not even chew her food for the muscles of her jaw did not have the strength, and was fed on mostly liquid food. After straightening her out she gained in the course of a few months from 86 to 173 lbs in weight, was again able to do the things she used to before she had diabetes. But she was a severe case and for the past fourteen years stayed on a low carbohydrate

level I was not able to obtain with insulin. Here there are no factors of recency of diabetes to which we could attribute the change, it is due to but one thing—protamine zinc insulin, one dose a day. When one sees such results as this in such a severe case one can't help but be impressed.

In Chart III, I have projected a record of a diabetic woman, fifty-seven years old now, whom I have observed since 1933. At the beginning she came with a blood sugar over 400, but being a diabetic of not long standing made a comparatively good improvement so that ten units a day would take care of her. In fact for a longer period insulin was discontinued, but had to be given again. In August 1936 she was again off of insulin, all three blood sugars normal. In October 1936 she developed bronchopneumonia. The chart illustrates what infections can do to a diabetic. They completely upset a patient's status and demand much insulin. Whereas her blood sugars all day long were normal shortly before the infection, they rose to over 300 and I had to give her as much as seventy units of insulin per day. After a long stay at the hospital, a coronary infarct, and chest aspiration three times, I placed her on protamine zinc insulin

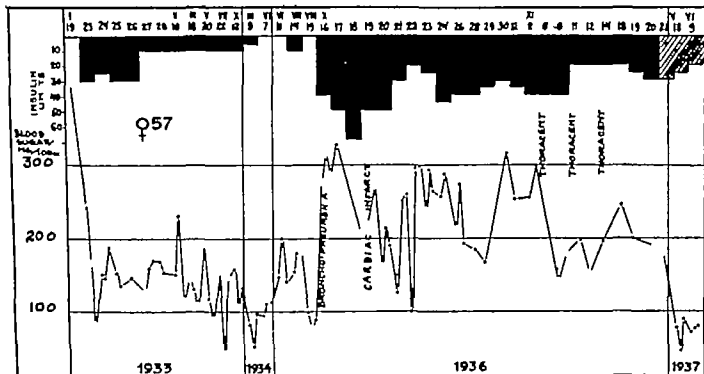
when her fever subsided at the end of her stay in the hospital and you can see the drop and the leveling of the blood sugar that followed. At present she is taking but twenty units a day.

During infection I have found that protamine zinc insulin does not work well, hence I always resort to insulin at such times. Also during acidosis and coma these are wise precautions I think. Per-

the treatment of diabetes, that we are making the life for diabetics easier and more normal. Thus, we can feel that we are achieving our goal.

The milder long-standing cases I don't even send to the hospital, but I have been working out their routine from insulin to protamine zinc insulin in my office that they need not interrupt their work. Three or four days usually accomplishes this

CHART III



haps when we have worked longer with protamine zinc insulin and have learned more about it, we may be able to employ it even here with certain caution. At present, however, it is not judicious to do so.

I have shown you the records of six cases of varying types. They all did well as you see and the natural question would be—do all cases do equally well? On the whole I can answer this in the affirmative. Occasionally I meet with a case where the response is not as quick as these but on the whole I have not met with any great adversities. There are many foolish things still done with the diabetics and the protamine zinc insulin. I could talk to you at great length and tell you of some—unnecessary hardships and foolish routines employed, waking up patients at 3 A.M. to feed them so they wouldn't have a reaction, etc. But all these things, I feel, will straighten out in time as men learn more about the rationale of protamine zinc insulin and its proper use. Personally I feel that in it we have a great advance in

The severe cases are better handled in the hospital, the children certainly so.

Last summer, I had only protamine insulin and then protamine calcium insulin, and while the results were good in the children yet there was not the marked leveling of blood sugar which I see with protamine zinc insulin. I feel therefore more encouraged and enthusiastic about it. Already there are reports coming out of other combinations which exert their action over a forty-eight-hour period. Just what future has in store for diabetics, no one knows, but we can certainly say that their future is brightening.

I was to talk to you also on crystalline insulin. I am regretful that I consented to be drawn into this as I have had no experience personally with crystalline insulin. Consequently I can give you only the gist of this from the literature. In the first place crystalline insulin is still in the experimental stage. For that reason it is not practical for use in general practice. It still belongs to the field of investigators

The average action is about fourteen hours although the reports vary considerably. For that reason it must be used in connection with insulin. This, of course, is a handicap—for thus the patient is not spared much. It works in acidosis in contrast to protamine zinc insulin, in this there is some advantage. On the

whole, however, the comparison between crystalline insulin and protamine zinc insulin is decidedly in favor of the protamine zinc insulin and I feel, as I mentioned in the beginning, that crystalline insulin belongs still to the investigator and not to the man in practice.

10515 CARNEGIE AVE.

DIAGNOSIS OF AMEBIC DYSENTERY

The clinical manifestations of amebic dysentery may range from a fulminating onset, tenesmus, abdominal pain, frequent discharges of blood and mucus, marked toxemia, and death within a few days from intestinal hemorrhage or perforation, to a condition of seemingly mild, recurrent diarrhea. Symptoms suggestive of appendicitis may be present. Many symptom-free carriers harbor cysts in the colon and are capable of spreading the disease. Amebic and bacillary dysentery are often so much alike in their acute phases that differentiation is possible only by laboratory examination of the stools.

The effectiveness of treatment depends upon early diagnosis and prompt institution of the specific therapy. Early treatment also reduces the likelihood of the serious complication, amebic abscess of the liver. Chronic cases are far more resistant to remedial measures than recent ones.

Submission of the Stool Specimen

Diagnosis of amebic dysentery may be made by finding in the stool either the actively motile vegetative form of *Entamoeba histolytica* or the characteristic cysts. In submitting laboratory specimens, the following points should be considered, but *it is always desirable as an initial step to consult the local laboratory director*.

(1) The stool must be fresh. This is essential, since the amebae may disintegrate soon after the specimen cools to room temperature. If possible the patient should pass the stool at the laboratory, if not, the stool should be collected in a warm container, kept warm, and sent immediately to the laboratory. (2) The entire stool should be submitted, if this is impracticable, the specimen should include some of the bloody

mucus. (3) Cysts are much more resistant and may be found twenty-four to forty-eight hours after the stool has been passed provided it has not been allowed to dry.

(4) Examinations on six successive days may be necessary to demonstrate the presence of amebae although three examinations are usually sufficient. (5) If no amebae or cysts can be demonstrated in stools passed spontaneously, a more satisfactory specimen may often be obtained by using a sigmoidoscope and scraping off with a small spoon curette a little necrotic material from the bed of an ulcer. (6) No oily medication should be given before collection of the specimen because oil droplets make examination for amebae difficult. (7) Since relapses are very common and may occur more than a year after an apparent cure, it is important to have specimens examined monthly for at least twelve months after symptoms have subsided.

Epidemiology

Despite the recent water-borne epidemic in Chicago, the chief factor, apparently, in the spread of amebic dysentery is usually the presence of encysted amebae in the stools of convalescents or healthy carriers, hence the predominantly endemic rather than epidemic occurrence of the disease. The carrier who is a food handler is a special menace. The disease is essentially one of tropical and subtropical climates but competent protozoologists believe it is far more frequent in temperate zones than is commonly supposed. It is probable that infection rarely results from the ingestion of the vegetative forms, they are promptly destroyed by the digestive juices—Issued by the New York State Association of Public Health Laboratories, Leaflet No 3.

DISTRICT BRANCH MEETINGS

FIRST—New York (New York Hospital)
November 16
SECOND—Garden City
November 17

FIFTH—Oneida
October 6
EIGHTH—Buffalo (City Hospital)
October 4

ACUTE PERIBRONCHIECTATIC PNEUMONITIS

Preliminary Report

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School Columbia University (MDD)

Studying the bronchograms of patients recuperating from acute pneumonic infection, we were surprised to find that only few of the cases with severe clinical course showed any bronchial dilatation, whereas a great many of the cases with mild clinical manifestations exhibited various degrees of bronchiectasis. A bacteriologic grouping of the cases and their correlation with the bronchiectatic condition revealed the astonishing fact that bronchial dilatation was present in less than two per cent of the cases of pneumococcal infection as against almost seventy per cent in the nonpneumococcal category. A discussion of the incidence, the type and the extent of bronchiectasis in relation to pulmonary infection, will appear in a separate contribution. The purpose of this preliminary report is to describe the syndrome of acute peribronchiectatic pneumonitis which in our opinion is much more common than supposed, but in practice is either overlooked or misinterpreted.

The report is based on fifty-five cases—thirty-five unselected from the pneumonia wards, and twenty selected bronchiectatic patients who went through the acute pulmonary infection, which was characterized by a benign clinical course, although the roentgenograms revealed varying extents of pneumonic consolidation. Neither the age nor the sex seemed to have any bearing on the course of the disease. There were forty-one males and fourteen females ranging in age from nineteen to fifty-six years.

Clinical Features The onset of the disease is usually acute with fever, dull pain or heaviness on the affected side, cough and expectoration. The cough is paroxysmal with varying amounts of expectoration. The sputum is thick yellow,

often mucopurulent, but rarely hemorrhagic in type.

The respirations vary from twenty to twenty-eight per minute with an average of twenty-four. The pulse rate increases to about ninety per minute, and the pulse-respiration ratio is not very much disturbed. Cyanosis is rarely observed.

The fever rises to about 102 F. with a diurnal variation of about two degrees, lasts for two or three days, drops to about 100 and continues at this level for a few days longer.

The average duration of the illness is about ten days. The shortest period in our group was five days and the longest twenty-one days. There were no fatalities. On close questioning, it was found that all of the patients had an acute upper respiratory infection a few days previous to the onset of the present illness.

Physical signs vary a great deal. The patient appears fairly comfortable in spite of the fever. Tactile fremitus is usually increased but sometimes diminished or absent altogether. Percussion generally elicits a dull sound over the involved region, but the lesion may be too small to effect any change in the percussion note.

Auscultation presents the greatest variation in signs, although a bronchial element could be discerned in many cases over the affected areas. Diminished or absent breath sounds may be a dominant feature for a short while, particularly when the bronchial expulsive mechanism is attenuated, and expectoration is suppressed. Deep cough may evacuate the bronchi and modify the auscultatory signs. Whispered voice and vocal fremitus vary accordingly. Bubbling resonating rales mixed with crepitant and subcrepitant rales are often heard on

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ordinary inspiration. The subcrepitant rales are the most constant and may persist even after apparently complete recovery.

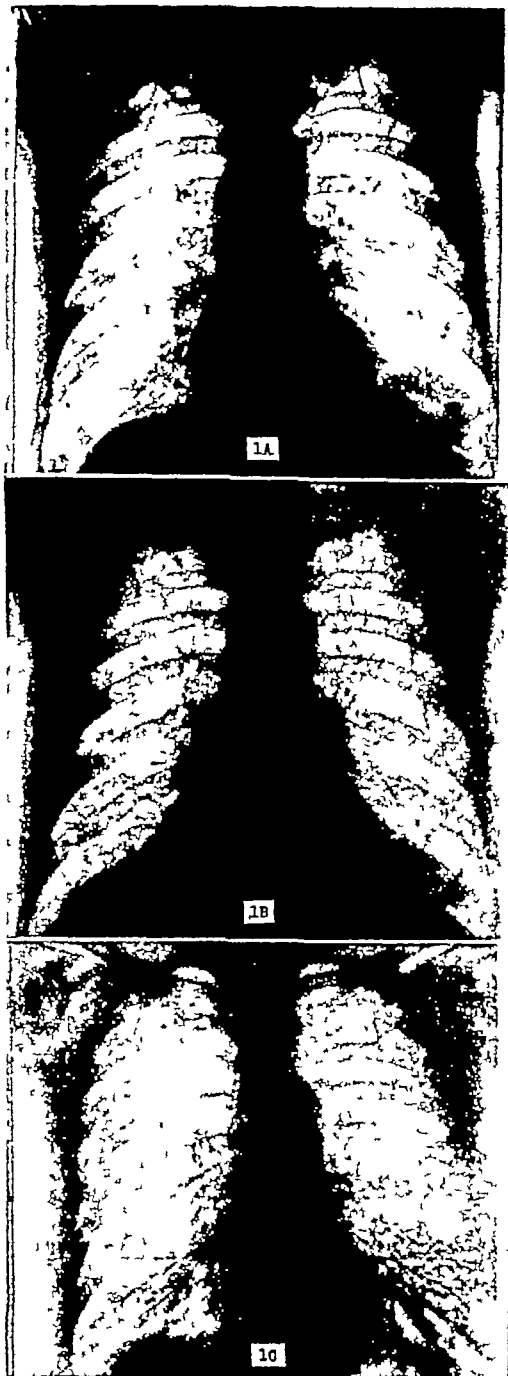


Fig 1-A. Note dense concentric shadow at base of left lung. Fig 1-B. Roentgenogram taken ten days later shows complete clearing of opacity. Fig 1-C. Left pneumonogram reveals extensive bronchiectasis of cylindric type.

Laboratory Findings. The predominating organisms found in the sputum were the streptococci groups mixed with the other bacterial flora commonly found in sputum.

The red blood cells and hemoglobin were within normal limits. The white blood cell count varied, but no case exhibited a high leukocytosis as in lobar pneumonia or the leukopenia found in influenza cases.

The blood chemistry was within physiologic standards, and the Wassermann test was positive in but one case.

Röntgenologic Pathology. The inflammatory process in the lung presented a great variety of pictures on the x-ray films in the basal area of the pulmonary field. Eight cases showed a bilateral lesion, the other forty-seven revealed a unilateral involvement slightly more predominant on the right than on the left side. Serial roentgenologic studies of the chest revealed that the pulmonary lesion healed by resolution and resorption in a few days, leaving only accentuated lung markings and peribronchial thickening of various gradations. Exploration of the bronchi with iodized oil in each case disclosed bronchial dilatation of the cylindric type, of varying extent and degree.

The accompanying roentgenograms are illustrative of the extent and distribution of the pulmonary lesion and the bronchiectatic condition.

Fig 1-A, an x-ray about two days after the onset of the illness, shows a dense concentric shadow at the base of the left pulmonary field, strongly resembling a neoplasm of the lung. The hilar region is fairly clear. Fig 1-B, roentgenogram of the same case ten days later, disclosed almost complete resorption of the dense shadow, leaving only accentuated lung markings and peribronchial thickening in its place. Fig 1-C, pneumonogram of the same case a few days later, exhibited marked cylindric bronchiectasis with a moniliform appearance more pronounced in the smaller bronchi.

Fig 2-A, a roentgen-ray picture two days after onset, shows a bilateral exudative process spreading from the hilum to the periphery, more diffuse in the right lower lobe. Fig 2-B, right pneumonogram of the same case ten days later, after the pulmonary process has cleared, shows early cylindric bronchiectasis extending to the lowest portion of the lobe. Fig 2-C, left pneumonogram a few days

later, reveals a cylindric type of ectasis more pronounced in the smaller bronchi

Fig 3 A, a roentgenogram about three days after onset shows a homogeneous opacity on the right side, extending from the base to about the third interspace, suggesting a pneumonic consolidation of lobar distribution with scattered infiltrative patches throughout the rest of the pulmonic field. Fig 3-B, right pneumonogram taken a few days later, exhibits extensive dilatation of the bronchi. The acute pneumonic consolidation has resolved completely, particularly in the outer zone of the pulmonary field. The densities still visible in this roentgenogram

designated as "acute peribronchiectatic pneumonitis," *first*, because it indicates the relationship of the affected bronchi to the pneumonic process, *second*, it distinguished the acute inflammation of the parenchyma of the lungs from the chronic pneumonitis which may be present in bronchiectatic patients

Acute peribronchiectatic pneumonitis should not be confused with the recrudescence of suppurative bronchiectasis which is characterized by marked general malaise hectic temperature and other toxic symptoms. This is particu-

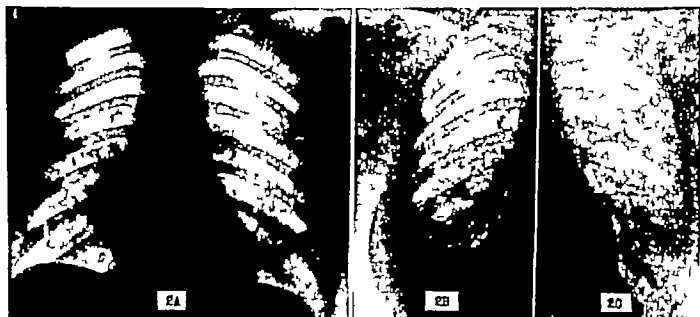


Fig 2 A Various small densities scattered throughout both pulmonic fields, more diffuse in right lower lobe. Fig 2 B Right pneumonogram shows early cylindric bronchiectasis. Fig 2-C. Left pneumonogram shows cylindric type of ectasis more pronounced in smaller bronchi (Note complete resolution of pulmonic patch)

persisted on all subsequent x-ray films and are doubtless due to chronic induration of the parenchyma of the lung

Discussion and Clinical Consideration Normal bronchi are usually resistant to streptococci infection. Blake and Cecil¹ using the method of intra-bronchial injection found that the normal monkey was resistant to ordinary strains of hemolytic streptococci but when the animal was subjected to inhalation of chlorine gas, a small dose of streptococci were sufficient to produce an inflammatory lesion in the lung. It is plausible to assume that the changes in the ectatic bronchi present in all of our cases, made them vulnerable to the attack of streptococci of low virulence which penetrated through the damaged walls into the lung parenchyma, setting up a local inflammatory process with mild constitutional disturbance. The condition is

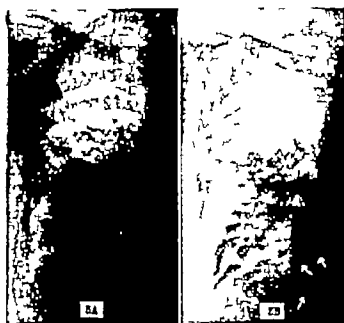


Fig 3-A Pneumonic consolidation of lobar distribution in right lung. Fig 3-B Pneumonogram fifteen days later exhibits marked bronchiectasis. (Acute pulmonic consolidation in outer zone has resolved completely, the chronic pulmonary fibrosis persists)

larly true of the saccular varieties with proximal narrowing of the ectatic bronchus which prevents effective drainage. The constitutional symptoms are due mainly to retention and stagnation of secretæ within the bronchiectatic cavity, although the lung parenchyma is not necessarily involved, at least as far as can be determined by x-ray studies. The reverse holds true in cases of acute peribronchiectatic pneumonitis which rarely manifest severe toxic symptoms although the roentgenograms may reveal extensive pulmonary consolidation.

The fact that in eighteen out of the thirty-five unselected cases no antecedent symptoms indicative of bronchiectasis could be elicited, is of utmost clinical importance. The acute pneumonitis was the first inkling of the presence of bronchiectasis, which was proven by introduction of contrast media into the bronchi. Subsequent periodic pneumonographic studies disclosed no pulmonary fibrosis in most of the cases, although the cylindric bronchial dilatation persisted. Furthermore, even those cases which presented x-ray evidence of marked bronchiectasis with chronic pulmonary fibrosis (Fig 3-A and 3-B), had only few symptoms referable to the bronchiectatic condition. As we have pointed out elsewhere,² the clinical syndrome of bronchiectatic pneumonitis varies with the evolutive stage of the ectasis, and marked dilatation may exist without any bronchorrhea or cough. None of the cases included in this report ever presented the clinical picture of advanced bronchiectasis.

A number of the patients gave a clinical history of having had "repeated pneumonia" which may be considered as attacks of acute peribronchiectatic pneumonitis. One of our cases had five such recurrent attacks within three years, although he was practically symptomless between the attacks. The pneumonic involvement always followed an acute upper respiratory infection, and clinically as well as roentgenologically was proven to be of the same type of acute peribronchiectatic pneumonitis.

There is no evidence that the disease was an acute influenzal pneumonitis of the type described by Bowen,⁸ for none of the patients showed the symptoms and prostration so characteristic of in-

fluenza. Neither was there leukopenia present in any of the cases. Furthermore the group reported by Bowen was endemic in nature, whereas the cases included in the report were all sporadic, although the attacks prevailed more in the cold winter months.

Reisman⁴ has called attention to a form of unilateral bronchopneumonic inflammation of lobar distribution which seems to resemble many of the cases of acute peribronchiectatic pneumonitis in its moderate symptomatology and semeiology, except for the protracted clinical course. All the cases described by Reisman had been running a subacute or chronic course, whereas in our cases the pneumonic process disappeared in a few days, both clinically and roentgenologically. The conditions of the bronchi are not described by Reisman.

It is interesting to note that in some of the cases of recurrent peribronchiectatic pneumonitis, each succeeding attack differed but little from the previous one, except in its duration, each subsequent acute pulmonary inflammation lasted longer and seemed to be slower in resolving. These observations, however, need more extensive clinical and roentgenologic corroboration, for only a few of our patients with repeated pneumonitis were hospitalized a second time. In the cases treated at home, the exact duration of the illness could not be ascertained, neither could frequent x-rays of the chest be taken for the study of resolution of the pulmonic consolidation.

Of clinical significance is the fact that recurrent pneumonitis was almost invariably averted in those bronchiectatic patients who were treated and put to bed as soon as they developed an acute upper respiratory infection. We are also under the impression that prolonged and intensive iodine medication is of value in preventing the recurrence of acute pneumonitis in cases of primary bronchiectasis without chronic pulmonary fibrosis. These observations are not complete enough to allow any definite conclusion, but undoubtedly deserve a further clinical trial.

Summary

Fifty-five cases of acute peribronchiec-

tatic pneumonitis are reported, twenty of which were selected bronchiectatic cases and thirty-five unselected in which the bronchial dilatation was proven subsequently by means of iodized oil

Roentgenologically, the acute pulmonic lesion varies from a single opaque shadow to a massive lobar distribution in one or both pulmonic fields. The pulmonary process heals by resolution and usually disappears from the roentgenogram within two weeks. Bronchography exhibits bronchial dilatation of the cylindric type in varying degrees

Clinically, acute peribronchiectatic pneumonitis is characterized by a benign course without constitutional symptoms as contrasted with the exacerbation of

suppurative bronchiectasis which manifests itself by severe toxic symptoms

The acute pneumonitis is sometimes the first indication of the presence of bronchiectasis, which may otherwise be entirely latent clinically

Prolonged and intensive iodine medication may often prevent the recurrence of acute pneumonitis in case of primary bronchiectasis without extensive chronic pulmonary fibrosis

65 CENTRAL PARK WEST

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- 2 Bendore R. A. and Gershwin B S *Arch Int Med* 54 131 1934
- 3 Bowen, A. *Am. Jour Roent and Radium Therapy* 34 168 1935
- 4 Riesenman D *Penn Med Jour.* October 1921

A BOOK REVIEW IN RHYME

Review of Medical Magic by David Dietz written by Sterling North in Chicago News

Glands displace old Marx and Freud,
Change our lives—in language terser
Cretins with a shot of thyroid
Become poets or vice versa.
Man or mouse? The endocrines
Make you meek or make you bold—
Last year it was in the genes!
Say, can you cure the common cold?
Orchids to the orthopedics
Violets to the violet ray men
How the psittacosis edicts
Cheer the long and suffering laymen.
Erudite on Hemophilia
In the reign of Rex the Bold
But when winter winds congeal you
Say can you cure the common cold?
Listen, swearers by Apollo
Deep in therapeutic lore
Give me something pink to swallow
Yah! I dare you! Just once more!

Vitamined until I wallow
Like a cod strayed from the fold
Atomized in every hollow!
Say, can you cure the common cold?
Men against the microscopic,
Chart the fever of my brow
Is the inner eye myopic?
Or who's psychopathic now?
Dietz de Kruij and Morris Fishbein
Have your bill of goods marked 'Sold'
Shall we swallow hook and fish line?
Say can you cure the common cold?

LENVOI

Aesculapius, great physician
May a patient be so bold?
Consider sir, my weak condition!
Say can you cure the common cold?
—J.A.M.A.

It has been well said that a teacher whose disciples do not go beyond him has failed. It is true that to smother a student beneath the weight of authority is to hamper the progress of medicine.—Langdon Brown Walter The Dead Hand in Medical Science *Lancet* 1 277, 1938.

The patent medicine company was offering one dollar cash for testimonials and received the following in the mail "For nine years I was totally deaf, and after

using your salve for only ten days I heard from my brother in Nebraska"—*Mississippi Doctor*

A lawyer said to a doctor witness "Doctors make mistakes sometimes, don't they?" "Just as lawyers do sometimes" was the answer

'But doctors mistakes are buried six feet under ground' persisted the lawyer

"Yes" agreed the doctor and lawyers' mistakes sometimes swing six feet in the air"—*Montreal Star*

THE MORE SERIOUS VASCULAR AFFECTIONS

Etiology and Diagnosis

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This contribution is devoted to a discussion of the etiology and diagnosis of the more serious affections of the extremities, of thromboangitis obliterans, Raynaud's disease, and endarteritis obliterans. Before discussing their etiologic and diagnostic features, permit me first to recall, if but briefly, our present concept of the anatomic and physiologic features of the peripheral vascular system in general.

The walls of a capillary are now known to be composed of two layers—and not of one as formerly believed—an inner endothelial layer with which we have long been familiar, and also an outer imperfect muscular layer consisting of a fine network of fibrils connected with so-called *Rouget cells*. This outer layer constitutes the contractile system of the capillary and is governed by its innervating sympathetic. The contractility and dilatability of capillaries is *not passive*, as was formerly assumed, but active and independent and assist in regulating the flow of blood. Upon dilatation the capillary either admits an inflow from the arterioles or accommodates the retarded blood in venous stasis, upon contraction the capillary accelerates the flow of blood toward the adjoining venules, though in an interrupted manner, the flow being retarded after each ten to twenty seconds of every two minute period.

Arteriovenous anastomoses also constitute a part of the capillary system, they are for the purpose of short-circuiting the flow of blood. These special channels either open or close in order to provide sufficient blood in the maintenance of a uniform temperature required in the protection of organs subjected to cold. The *anastomotic unit or glomus* includes the afferent artery, the anastomoses, the neuroreticular and rich capillary structure around the channels, the collagenous tissue surrounding it, and the

primary collecting venules, it serves the purpose of regulating surface temperature and excess arteriolar contraction. If any part of the glomus be occluded, it may result in gangrene, in arteriosclerosis, the gangrene is generally due to hyaline degeneration and occlusion of the afferent arteries, in diabetes the arteriovenous anastomoses and pre-glomic arterioles are mostly involved, in thromboangitis obliterans, the pathologic process varies.

Twenty to thirty per cent of the peripheral resistance is provided by the capillaries, the remaining seventy per cent by the constricted arterioles, collecting veins, and the adjoining tissues. Capillary pressure depends upon various conditions as arteriolar constriction, venous congestion, local hyperemia, inflammation, cold, etc., and varies in different parts of the body in accordance with their location and venous circulation.

The vasomotor sympathetic nerves supplying the blood vessels of the extremities are constrictors, the vasodilators are unknown. The normal tone of the peripheral vessels is maintained through constriction, fluctuating in accordance with environmental changes in temperature, the internal production of heat, and emotional reaction. The skin by radiation, convection, and conduction dissipates about seventy-six per cent of the total heat produced, the remaining twenty-four per cent being eliminated through the lungs and through water vaporization. The extremities are particularly subject to variations in vasoconstrictor tone because they play a major part in conservation or elimination of heat.

Common diagnostic features. Before discussing the characteristic etiologic and diagnostic factors of the individual disorders, let us first present briefly the *diagnostic* features common to *all* vascular disorders of the extremities. The diag-

Read before the Physical Therapy Section of the Kings County Medical Society, February 11, 1937

nosis of vascular disorders may now be made early, due to the various available methods and new apparatus, occasionally no diagnostic instruments are required. It is especially important to diagnose the disorders early, as simple procedures at this time may prevent subsequent serious complications, as gangrene. Such diagnosis may be established by a minute history, careful inspection and palpation of limbs under suspicion, search for metabolic disorders, infections and central or peripheral nervous diseases and particularly by proper study of the cardiac apparatus and arteries.

A careful *history* is of utmost help. Inquiry must be made into the presence of pain its site, type, degree, and distribution, whether the pain occurs during rest, a common symptom in preulcerative and pregangrenous states. One should also be informed as to the presence of fatigue coldness or numbness of the extremity, or of attacks of intermittent claudication. Smoking must be given exceptional attention as it is a very important etiologic factor in these disorders.

The available *clinical* methods of investigation for impaired circulation in an extremity number quite a few.

1 Inspection may reveal—

(a) *Local pallor or ischemia* determined by elevating the extremity above the level of the heart, this indicates that the superficial vessels are emptied because of arterial structural impairment, that the normal *vis a tergo* is absent.

(b) *Rapid cyanosis* occurring when the limb is suddenly changed to a pendant position.

(c) *Rubor or erythromelia* of the skin due to dilatation of capillaries and small vessels with local cyanosis resulting from stasis of toneless superficial vessels. Inspection may also reveal the presence of atrophy nail deformity hair growth etc.

2 Palpation offers important diagnostic data

(a) Palpation of like pulses of similar extremities is most valuable. In the *lower extremity* the femoral pulse may be felt midway between symphysis pubis and the anterior iliac crest the popliteal pulse by firm pressure deep in the popliteal fossa with the patient in the prone position the extremity flexed at the knee and muscles completely relaxed, the posterior tibial artery will be found between the internal

malleolus and tendo Achilles, here the extensor muscles of the foot must also be completely relaxed, the *dorsalis pedis* may easily be felt with the palmar surface of the finger tips between the first and second metatarsal bones, except in a small percentage of cases where it is absent or in a different position.

In the *upper extremity* the pulse of the brachial artery can be felt in the middle portion of the inner side of the arm between biceps and triceps the ulnar pulse, by firm pressure applied over the ulnar border of the wrist on the inner side of and above the pisiform bone the location of the radial pulse is common knowledge. However, in palpating pulses one must bear in mind that absence of pulsation need not always be due to occlusion but may also be due to edema, accompanying adiposity an overlying tendon or ligament, or an occasional abnormal position of the artery one must also remember that in the senile because of sclerosis pulsations may be very weak and yet the circulation be quite adequate.

(b) *Coldness* of an extremity due to a decreased supply of blood may also be determined by palpation and is a significant symptom inequality of surface temperature of two symmetrical extremities as determined by palpation but more accurately established by thermometer and thermoelectric apparatus, is of great diagnostic significance and invariably indicates disease of the blood vessels. A sudden decrease in temperature somewhere between the proximal and distal portion of an extremity is almost pathognomonic such difference may vary to the extent of three degrees or more and may readily be detected by ordinary palpation the hands being capable of appreciating a difference of even one degree where doubt exists the special mercury thermometer or the thermoelectric couple may be used.

Of *laboratory tests* for diagnostic purposes the following have proved very dependable.

1 *Pachon oscillometry* whether of the recording or nonrecording type, is invaluable in determining the patency of deeper arteries a comparison of the amplitude of oscillometric readings taken at definite similar levels of the two extremities offers a fairly accurate idea of the extent of an occlusion with the exception of instances where extensive collateral circulation exists oscillometry is one of the most precise means of determining the circulation of an extremity, particularly of its larger vessels.

2 *The histamine test* the reaction produced by the intracutaneous injection of 0.1 c.c. of a 1:1000 solution of histamine,

with or without 0.5 per cent of novocain, into an extremity held in horizontal posture, is simple and valuable in revealing the adequacy of the cutaneous *collateral* circulation, otherwise difficult to establish. A negative reaction five to ten minutes after injection is very significant and may indicate absence of blood pressure sufficient to fill the dilated arterioles or the presence of marked spasm. This test assists in determining the optimum level in amputations, and in estimating the progress of therapy by conservative medical means.

3 The rate of absorption of an *intracutaneous injection of 0.2 cc of normal saline* (Cohen) is also a reliable adjunct in determination of the state of circulation of an extremity, the poorer the circulation, the faster the absorption, one hour being considered about normal.

4 The delay of *reaction hyperemia* following blood vessel compression is also characteristic of arterial disorders, in the normal, the blood reaches the digit in less than fifteen seconds in the form of a full flush of maximum intensity, in obliterating diseases the hyperemia is delayed to a minute or more and the digit presents a mottled or patchy appearance.

5 *Arteriography* is another important laboratory means of determining the circulation of an extremity. An ordinary radiogram may reveal the presence and the extent of calcification of an artery, but offers no information as to the efficiency of the circulation in the calcified blood vessels. With arteriography, however, especially developed since the introduction of sodium iodide and thorium dioxide as opaque media, considerable information may be acquired otherwise unobtainable. In arteriography of a normal limb the vessels are numerous and of well-defined appearance, in arterial disease the involved arteries show a patchy distribution of lesions in various locations, an irregularity of course and contour of their luminae, with a reduction in size, and often a division of the opaque medium as by a knife at points of occlusion, in arteriosclerosis, marked tortuosity and narrowing of the lumen with conspicuous absence of collateral circulation are prominent features.

Other diagnostic means as plethysmography, studies of vascular tone, blood volume and blood viscosity, the methods of differentiation between mechanical occlusion and vascular spasm, as posterior tibial nerve block, the reflex vasodilation method of Landis and Gibbons, paravertebral block, spinal anesthesia, various drugs, etc., may not be dilated upon here, in blood vessel surgery and in research these studies prove most valuable.

We shall now present very briefly the most important etiologic and diagnostic features of each of the three serious vascular disorders—Buerger's disease, Raynaud's disease, and endarteritis obliterans.

Buerger's Disease

Buerger's disease is the result of a chronic, slowly progressing inflammation, probably of toxic origin. It affects the deep-seated arteries and veins of the lower extremities and occasionally is associated with a migrating phlebitis of superficial veins. Here there is an acute inflammatory thickening of the vessel wall with leukocytic infiltration, miliary giant cell foci formation, and the production of an extensive obstructive thrombus, here small purulent foci are found which upon healing become organized and often canalized by newly-formed small vessels, thus completely shutting-off the circulation in that vessel by occlusion, finally, the development of fibrotic tissue in the surrounding adventitia binds together the artery, adjoining veins, and nerves into one mass.

Buerger's disease principally attacks males and but seldom the female, it generally occurs in the young adult or middle aged, rarely after the age of fifty. Hebrews are affected most commonly, particularly those in the central parts of Europe, cigarette smokers and excessive tobacco users are frequent sufferers. It has been established that nicotine by affecting the sympathetic ganglions causes an allergic vascular reaction, thereby increasing heart rate and blood pressure through stimulation of the adrenals, which results in peripheral vasoconstriction, particularly of the toes, the tobacco and not the paper produces this phenomena.

Buerger's disease usually begins insidiously, but occasionally the onset is acute. It is characterized by unmistakable symptoms: intermittent claudication upon walking or exercising with severe cramp-like pains in the lower extremities, feet or calves, which subsides upon discontinuance of effort, the pain is often mistaken for that of neuritis, sciatica or rheumatism. At other times, there may be fatigue of muscles or deep-seated tenderness on pressure, in the later stages or preceding and during infection, trophic

ulceration or gangrene the pain is more severe at night, the accompanying superficial phlebitis, where present, is also painful.

Another symptom is constant redness of the affected extremities known as *chronic rubor*, this is often noticeable only when the extremities are first elevated toward the perpendicular plane and then dropped below the horizontal with the patient remaining in the prone position, several repetitions of such procedure may be necessary to bring out this reactionary rubor.

A third symptom is blanching of the skin, which is elicited by raising the leg from the horizontal to the perpendicular position, after a few minutes, the blanching appears, the extent and position depending upon the site of the thrombus. Where ischemia persists with the limb below ninety degrees, the circulation is definitely impeded and early gangrene imminent.

Low or absent oscillometric readings and decreased or absent pulsation of the artery supplying the extremity are invaluable in detecting this disease even in its early stages. In the later stages other symptoms present themselves as paresthesias, numbness, coldness, trophic changes in nails, fissures, and ulcerations of skin.

The characteristic diagnostic features therefore, of thromboangitis obliterans are its occurrence in the young or middle-aged male, affecting principally the lower extremities, the upper only on extremely rare occasions, ischemic rubor, the absence of arterial pulsation, of oscillometric vibration and of bony changes as revealed by x-ray examination differing in this respect from arteriosclerosis, endarteritis and Raynaud's disease. The blood in this disorder shows an increase of lecithin, cholesterol, and calcium.

Raynaud's Disease

This is a vascular disorder involving principally the fingers and toes, but occasionally also other organs as the ears, chin or lips. It is more common in women at the age of twenty to thirty, the lesions are usually symmetrical. It often constitutes a syndrome in disorders as syringomyelia, multiple sclerosis and angioneurotic edema, it also occurs in various

endocrine dysfunctions, infections and poisonings, as chronic arsenical. It is found to be frequent in hypocalcemia and hyperparathyroidism with their resulting vasomotor spasm. The primary fault, however, appears to lie in an abnormality of the vasomotor system with special susceptibility of the digital arterioles.

The disease begins suddenly and passes through three stages.

1 Local white syncope accompanied by severe pain, pallor, coldness, a feeling of deadness or paresthesia of the parts affected. This is induced by arterial spasm and lasts but a few minutes or longer.

2 Local asphyxia when the extremity turns dark blue or black and the pain is more intense with possible blistering. This may persist for weeks or months when the third stage sets in.

3 Local gangrene when a finger or toe or other part involved may become detached.

An important provocative etiological factor is prolonged exposure to cold. A paroxysm may be induced by the immersion of an affected extremity into cold water (15° C) and the spasm relieved by exposure to warm air or water, when relaxation of blood vessels and a change to red from the previous color of blue, occurs.

In severe cases the spasm may persist even at room temperature the flow of blood being retarded or completely stopped, injuring the tissues supplied and causing dry gangrene of the tips. The normal reactive vasodilatation of an extremity exposed to cold is absent or reversed to vasoconstriction in Raynaud's disease. The redness is without the normal rise of temperature is limited in extent and prolonged in duration the spasm is limited to the deep digital arteries, not the veins.

Endarteritis Obliterans

This disorder usually occurs after fifty and is associated with arteriosclerosis. There is a more general involvement of blood vessels although those of the lower extremities are more commonly and more seriously affected. It affects mostly the aged hypertensive diabetics, syphilitics, gouty as well as those subject to chronic lead poisoning, alcoholism, and mental overexertion. In this condition, the arteries suffer proliferation of their endo-

thelial tissue, thickening of the intima with a gradual narrowing and obliteration of the lumen, small aneurysmal dilatation is not uncommon, small cell infiltration in the adventitia and media is also found. Migrating phlebitis is absent and the redness and ischemia are of little significance, although gangrene develops more rapidly.

In conclusion we may state that with the present means at our command—clinical, physical, laboratory and instrumental—there is not much difficulty in diagnosing even early, the various disorders of the peripheral vascular system, provided one bears these possibilities in mind and applies the means at hand.

867 ST MARKS AVE.

DIAGNOSIS OF BACILLARY DYSENTERY

Bacillary dysentery, like plague, cholera, and influenza, has been one of the great scourges of the world. Although improved sanitation has now greatly reduced its frequency, the disease still appears sporadically or breaks out in mild epidemic form. Carriers may play an important part in the spread of the infection.

The occurrence of a group of cases with sudden onset of diarrhea with blood and mucus in the stools, should prompt the physician to obtain immediate laboratory aid in determining whether or not the epidemic is caused by dysentery bacilli. By such action an outbreak may sometimes be discovered early, the source recognized and eliminated, and the progress of the epidemic stopped. Frequently, however, the etiological agent is not identified, either because no stool specimens are taken for laboratory examination or because they are not taken sufficiently early. Furthermore, it is important to remember that single or isolated cases of the disease may occur. In such instances, early laboratory examination of stool specimens may make possible an immediate diagnosis.

The incitants of bacillary dysentery have been found to be a number of different strains of dysentery bacilli which differ from each other more or less markedly. The severity of the infection usually varies, depending upon the particular strain involved. The most virulent form occurs very rarely in New York State.

When dysentery is suspected, the physician is required by state regulations to submit for examination to a laboratory approved for the purpose (1) a specimen of feces, (2) ten cc of blood. Specimens of feces must also be submitted before the patient is released.

Laboratory Aids in Diagnosis

I Stool Cultures It is usually possible to demonstrate dysentery bacilli in the stools at the onset of the illness. The chances of a positive culture decrease rapidly as time elapses. Specimens consisting of bloody mucus are the most favorable for examination. If specimens cannot be delivered immediately to the local approved laboratory, preservative is necessary and special containers provided with suitable preservative may be obtained from the local laboratory supply stations. Cultural examination of later specimens will sometimes yield positive results when the first specimen does not.

II The Agglutination Reaction Agglutination tests are of very little assistance as an aid in the diagnosis of bacillary dysentery. Serum from healthy individuals often agglutinates in a high dilution microorganisms of the Flexner type while the serum from many cases of the other types does not agglutinate the incitant, at least during the early stages of the illness, in a sufficiently high dilution to aid in the diagnosis. However, specimens of blood for agglutination tests should always be submitted for examination for evidence of typhoid and paratyphoid fevers.

III Blood Cultures Dysentery bacilli are rarely present in the blood stream. Hence, blood cultures are of no help except in so far as they may aid in the exclusion of other types of infection.

Polyvalent antidysentery serum may be obtained from the Division of Laboratories and Research in Albany. Prompt administration of the serum is indicated in severe cases—Issued by the New York State Association of Public Health Laboratories, Leaflet No 4.

HOPE SPRINGS ETERNAL

The minister had just finished conducting the funeral services of a good woman, and was consoling the bereaved husband.

"You have lost your wife," the pastor said, "but there is one who loves you and

will watch over you until your sorrow is but a sweet memory."

"Do I know her?" asked the widower, as he dried his tears.

—*Illinois Medical Journal*

A MODIFIED NASAL CATHETER FOR USE IN OXYGEN THERAPY

DICKINSON W RICHARDS, JR., M D, *New York City*

From the Department of Medicine Columbia University and the Presbyterian Hospital

In order to avoid the irritation, excoriation, and bleeding that sometimes occur following prolonged use of intranasal catheters in oxygen therapy, a modified single nasal catheter has been devised. The essential feature of this is an enlarged tip which fits into and occludes one nostril. It is large enough so that it remains in place but does not produce obstruction of the other nasal passage.

The component parts of such a catheter are shown in Fig 1. As seen, they are extremely simple, and can be readily assembled: (1) a number 12 French soft urethral catheter, its tip cut off to fit over (2) a small angulated glass piece (3) a one cm. length of soft, thick-walled rubber tubing, approximately $\frac{1}{8}$ inch diameter, $\frac{1}{8}$ inch bore. The sides of the latter can be shaved down, if desired to provide an oval shape to fit narrow nasal openings. A cylindrical or oval piece of fine sponge rubber (such as is provided in nose-clips for basal metabolism determinations) may also be cut out and used for this nasal tip. The assembled catheter is shown also in Fig 1.

Added advantages of this device are that it is light, can be passed over and behind the ear so as not to interfere either with reading, talking, or eating and that it can be inserted or removed at will by the patient, or shifted from one nostril to the other.

It is important to have the oxygen pass through a water bottle before reaching the catheter as the flow of dry oxygen into the nasal passages produces an undesirable drying effect.

The effectiveness of this catheter is comparable to that of the double intranasal catheter. Using this single occluding catheter, with oxygen inflow at six liters per minute, in a normal subject, it was found that the oropharyngeal oxygen con-

centration was forty per cent. A similar test in the same subject, using the double intranasal catheter, gave an oropharyngeal oxygen concentration of thirty-eight per cent.

G. G. a man of fifty seven with advanced pulmonary fibrosis and dyspnea and an arterial oxygen saturation of eighty seven per cent was relieved of dyspnea by the use of the single occluding catheter, with oxygen at five liters per minute. His arterial oxygen saturation after two hours of this treatment was normal ninety six per cent.

E. K. a woman of fifty two who also has marked constrictive pulmonary fibrosis with anoxemia and dyspnea has used a single catheter of this type continuously (day and night) for nearly three years.

620 W 168 St.

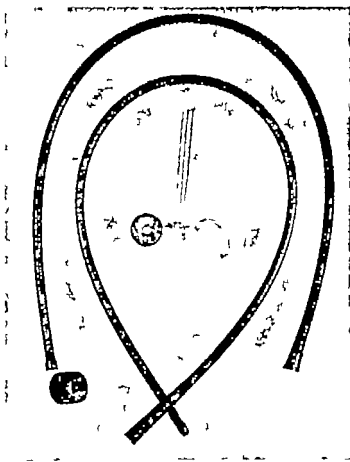


Fig 1

A hospital is being planned for Westchester County by the McCosker Hershfield Cardiac Foundation, to care for needy

adults with heart trouble. The Foundation has its headquarters at 122 East 42 St. New York City

BORIC ACID DERMATITIS

ALEXANDER ROTHBERG, M D and GEORGE ADAMS MERRILL, M D, *Brooklyn*
From the Department of Allergy, Kings County Hospital

I H., forty-nine years old and a barber for the past thirty-five years, was referred on October 29, 1934 from the Dermatology Department to the Allergic Clinic of the Kings County Hospital for diagnosis of a dermatitis which had become so severe that his family physician advised hospitalization. His past history is irrelevant in regard to his present condition. He also gives a negative allergic history.

Eighteen months previously, he suffered from a severe outbreak of boils. He treated himself with large quantities of an ointment which, upon later investigation was found to be boric acid ointment. From that time, except for occasional free periods, which lasted at most a week, his skin has been covered with a fine papular rash in the regions of the axilla, inner side of the thighs, and flexor surfaces of both forearms. Recently it has become more vesicular in character and the itching extremely severe.

On November 20, the patient was given injections of a mixed vaccine (VanCott). This vaccine contained 1,500 million killed bacteria per c.c. consisting of the colon bacillus, pneumococcus, streptococcus hemolyticus and nonhemolyticus, staphylococcus albus, and aureus. Four injections were given at weekly intervals with graded dosage beginning with 0.1 c.c. and ending with 0.4 c.c. when his condition cleared up completely. He then received a biweekly injection of 0.4 c.c. for the next three months. During all this time the patient complained of no itching. We then decided to discontinue the injections. With the discontinuance of these injections, however, his condition promptly returned. A series of skin tests

of the various foods and inhalents were made, which proved negative. Patch tests were made with the different materials he used in his daily occupation as a barber, e.g., talc, hair tonic lilac, cold cream, etc. All were negative except the test for cold cream which was strongly positive. The patient was advised to eliminate the use of cold cream, which, however, was impractical in his occupation. He was then patch tested with the ingredients used in the making of cold cream, i.e., white bees-wax, mineral oil, paraffin, boric acid, and perfume oil (rose astre). The patch test for boric acid was strongly positive and caused a severe exacerbation of the dermatitis.

The patient is now using a vanishing cream which contains no borax and when he uses a massage cream that contains borax, he wears rubber gloves. There has been no recurrence of the dermatitis for the past nine months.

The points of interest in this case are (1) The probable precipitation of a sensitivity to boric acid by the use of large amounts of boric acid ointment when the patient's resistance was lowered by an outbreak of boils. (2) The disappearance of the dermatitis after the patient received injections of a mixed vaccine, and its recurrence upon the discontinuance of the injections.

As far as we have been able to determine, there is no record of a case of boric acid sensitivity recorded in the medical literature.

907 ST. MARKS AVE.
816 OCEAN AVE.

BIG HEALTH MUSEUM MAY SPRING FROM 1939 EXPOSITION

A permanent public health museum, perhaps the first in the United States, which would reveal many of the present secrets of plague suppression, and the campaigns against such epidemics as typhoid, tuberculosis and diphtheria, will be one of the principal developments of the Golden Gate International Exposition if plans now being drawn up by the American Public Health Association finally materialize. It is hoped

to locate the museum somewhere in the San Francisco Bay region, possibly in San Francisco. It will be so set up that displays of specimens and procedures may be sent to any point in the West and to the three Canadian provinces claiming membership in the Association.

Preliminary plans for the museum were discussed at the tenth annual meeting of the Association in Portland, June 6 to 8.

ACUTE APPENDICITIS WITH JEJUNAL INTUSSUSCEPTION AND ABDOMINAL LYMPHADENITIS

Occurring In a Child Immobilized In a Spica Plaster Cast Report of Case

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*From the Department of Surgery New York Medical College and Flower Hospital
Metropolitan Hospital Service of Dr. Louis R. Kaufman*

The following case is reported because of the unusual combination of operative findings and the possible etiological significance of such acute abdominal conditions as intussusception and appendicitis arising during a period of prolonged abdominal immobilization in a spica plaster cast

R. M., a six year old white boy, was admitted to the B D hospital on May 18, 1937 with a history of having fallen through a fire-escape shaft for a distance of two stories to the ground. X rays showed a fracture through the midshaft of the left femur and a fracture through the shaft of the right tibia. A cast was applied for the fractured tibia, and the fractured femur was treated by Russel traction. On June 12, the traction was removed and a full spica plaster cast was applied with the left leg in Whitman abduction position. On July 14 the patient was transferred to the Metropolitan Hospital. On July 15, the morning following admission, the child began to vomit at repeated intervals, vomiting everything taken by mouth. At this time the child complained of moderate abdominal pain, and on further investigation it was found that he had had considerable upper abdominal pain before being transferred from the other hospital (although he did not complain at that time) and had not had any bowel movements during the past week. At this time the temperature was 101° (rectal), pulse 120, rectal examination revealed a large amount of impacted feces. An effectual evacuation was obtained by enema but the abdominal pain and vomiting persisted. There was no blood noted in the feces obtained by enema.

To make abdominal examination possible, the plaster spica cast was cut down and the abdominal findings were as follows. The entire right side of the abdomen was rigid with marked rebound tenderness and maximum tenderness at McBurney's point. The left side of the abdomen was not rigid, was only moderately tender, and palpation revealed multiple doughy masses which seemed to "float" away from the pal-

pating hand, these masses suggested multiple areas of fecal impaction in the small intestine. The upper abdomen was markedly distended and generally tender. On rectal examination now (after the enema), no more fecal masses were present, and there was no evidence of blood on the gloved finger.

The laboratory findings were as follows

White blood corpuscles 29,400, with eighty eight per cent polymorphonuclear neutrophils.

Blood sedimentation rate thirty mm. in one hour.

Urine examination essentially negative.

Laparotomy was performed through a right rectus incision. On opening the abdomen and peritoneum, some clear free fluid was obtained. The cecum and appendix presented into the wound immediately the appendix was found gangrenous throughout and was removed. About the ileocecal region there was a large number of extremely large lymph glands the overlying peritoneum being intensely reddened and injected a gland was removed for biopsy purposes. Almost the entire small intestine was collapsed with multiple areas of impacted, doughy fecal masses. This state of intestinal collapse was present to a point in the jejunum about twelve inches distal to the ligament of Treitz and proximal to this point the proximal jejunum, the duodenum, and the stomach were markedly distended. The right rectus incision was extended upward and further investigation revealed the obstruction to be a jejunal intussusception involving about five inches of jejunum. The area of involved intestine and its mesentery showed a reddish blue discoloration but no evidence of impending gangrene. There were several serosal tears in the involved intestine with ecchymoses and small subserosal accumulations of extravasated blood. The intussusception was reduced by manipulation and applications of hot towels brought about a rapid restoration of normal color and peristaltic activity to the intestine. The serosal and muscularis tears in the intestine were closed with fine intestinal sutures.

The patient made an entirely uneventful

recovery, with no postoperative distention or vomiting, there was a normal spontaneous bowel movement on the third postoperative day

The pathological report of the appendix and lymph gland, respectively, was gangrenous appendicitis and hyperplastic lymphadenitis

Comment

A careful search of the literature does not reveal a similar case report True, there are reported not infrequently cases in which the appendix has been found intussuscepted in an involved area of ileum or cecum, but jejunal intussusception is in itself an infrequent occurrence, and the associated acute appendicitis, lymphadenitis, and fecal impaction make a rare combination of findings

However, this communication wishes to stress as most important the etiological

significance of the factors in this case

1 Immobilization and incarceration of the abdomen in a spica plaster cast results necessarily in enforced abdominal and intestinal inactivity, and therefore, fecal stasis

2 There is necessarily a relationship between intestinal stasis, disturbances in the neuromuscular mechanism of the intestine, and altered peristalsis

3 A body spica cast may conceal and confound the recognition of acutely emergent intra-abdominal conditions

It is therefore concluded that the findings in this case suggest further observation and study of the causal inter-relationship of altered intestinal peristalsis, fecal stasis, intussusception, and acute appendicitis

140 W 58 St
57 W 57 St

PHILOSOPHY OF MEDICAL EXAMINER

"All human nature is alike—in doctors, lawyers, plumbers," is a statement that will be a blow to plumbers who fancy they are superior to doctors—or vice versa It is credited to Dr Edward Marten, Deputy Chief Medical Examiner of New York City, in an interview in the *New York Mirror*, perhaps an appropriate place for reflections Here are some more of them

"I'm pessimistic about the future If I could rub an Aladdin's lamp and be granted another twenty-five years of life, I wouldn't take it. I see too much that I do not like

"The murderer today is a young man, not yet twenty-two And it's the parent's fault.

"Children are not born wrong, but they can go wrong quickly Their parents do not live with them Why, I have seen mothers with children at their breasts and cigarettes in their faces

"The whole mess comes back to the individual's refusal to think deeply If you had examined, as I have done, thousands, of marvelously complex human brains, you would know that human life and conduct is no accident. There must be an Almighty Maker It cannot be mere chance

"And when you admit that there is an Almighty, you have the basis of the restraint we call Civilization

"You begin to realize that honesty is simply a matter of good business You sleep better

"You begin to realize that you can only wear one pair of shoes at a time, so why be dishonest to have more than one? You begin to realize that there is only one real wealth—how many pairs of shoes can you provide for others? That is the one kind of wealth that you can take with you when you die

"I have seen men die with that kind of wealth in the pockets of their souls There was a look on their faces, not of fear, but of anticipation of the peace that passeth all understanding'

"No, I have never seen an electrocution My testimony in a trial once sent a man to the chair The prosecutor asked me to go up and watch him die in the death house It was funny, but I didn't want to go

"There wouldn't be so many people in the death house, so many young people, if preachers would cut out all the politics and economics in their sermons and boil it all down to this Be a gentleman

"I tell you one lesson I've learned from the dead It doesn't behoove a man to feel superior and concerted in life Because stretched out there on the dead table, murderers or millionaires, they are all equal"

HOMOLOGOUS POPLITEAL CYSTS OCCURRING IN IDENTICAL TWINS

PHILIP D ALLEN, M D and PETER MANJOS, M D, *New York City*
From the Children's Surgical Service Bellevue Hospital

Popliteal cysts were first described by Baker¹ in 1877 and their connection with the knee-joint was noted in several instances. The origin of these cysts has been variously ascribed to osteoarthritis of the knee-joint, trauma with herniation of the capsule, or to degenerative processes of regional bursae. The following cases are presented because of the unusual development of homologous popliteal cysts in identical female twins at the same time.

R. M., age nine, was admitted to the Children's Surgical Service of Bellevue Hospital on April 14, 1937. The mother stated that a lump was first noticed in the back of the left knee three weeks prior to admission. She believed it had slowly increased in size. Except for slight pain in the popliteal re-

made over the tumor mass. Exposure revealed a cystic mass with a thick fibrous capsule about five cm in diameter overlying the medial head of the gastrocnemius and bound to it by thin fibrous adhesions. On dissecting it free the cyst ruptured exuding a clear, mucilaginous substance. The body of the cyst extended anteriorly and superiorly and was connected by a non patent stalk to the capsule of the knee joint. Microscopic sections showed a chronic productive inflammation of the cyst wall.

The other child M. M., was admitted to the hospital on the same day. She likewise complained of a tumor in the back of the left knee joint which had been discovered by the mother as previously described. It had increased slightly in size but had produced no symptoms. Positive findings were limited to the left popliteal space where a cystic mass about four cm. in diameter was

Fig 1 Posterior view of knees showing location of cysts.



gion on walking the tumor gave no symptoms. It was discovered by the child's mother who examined the patient out of curiosity because an older brother had a similar cyst removed from the left leg three months previously. On further investigation a similar lesion was found in the child's twin sister. Physical examination revealed a cystic unilocular mass about five cm. in diameter in the medial aspect of the left popliteal space. The mass was firm and prominent with the knee in extension but almost disappeared on flexion. It was attached to the deeper structures but not to the skin. There were no other abnormal findings.

On April 19, under ether anesthesia, a vertical incision about two inches long was

visible and palpable with the knee in extension. The mass was firm and movable and attached to the deeper structures but not to the skin. It disappeared on flexion of the knee.

On April 19 a similar operation was performed on this child. Exploration revealed a cyst with a thick fibrous wall about four cm. in diameter overlying and adherent to the median head of the gastrocnemius. At the point of attachment to the gastrocnemius the wall was thinned out so much that it ruptured on dissection. The contents were found to consist of a clear mucilaginous substance. On deeper dissection the cyst wall was seen to lie between the inner head of the gastrocnemius and the semitendinosus tendon with the anterior wall directly in con-

tact with the capsule of the knee-joint. No definite communication with the joint cavity was demonstrable. Microscopic examination demonstrated chronic productive inflammation of the cyst wall.

The noteworthy points about these cases are that (1) similar lesions in the same location have occurred in identical twins practically at the same time, (2) an older brother was affected in the same manner three months previously, and (3) that there is no history of previous injury or disease of the knee-joint in either child.

Homologous congenital anomalies are frequently found in identical twins. Snodgrass² emphasizes the fact that these cysts find their origin in the gastrocnemius bursa which is located between the median head of the gastrocnemius and the

semimembranosus and which often communicates with the knee-joint. It is conceivable that in each of the above patients a somewhat anomalous location of this bursa had exposed it to constant trauma producing a low grade inflammatory reaction. Possibly as a result of this inflammatory reaction, the communication of the bursa with the knee-joint became closed and further irritation led to the development of a cyst filled with mucilaginous substance producing the picture of a chronic bursitis.

116 E 58 St

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BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, DR P H, *New York City*

Editorial Note: Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine.

Frequent Handicaps

Some of the cases of maladjustment coming—or coming first—to the general practitioner are so light that they cannot be correctly classified. They may not be psychotic, but they are not normal.

A man of thirty, married, living in the best terms at home and whose family history, as well as his previous personal history, are negative, suffers from "embarrassment," to use his own expression. He is afraid of *blushing*, expects to blush and therefore blushes in the presence of new acquaintances. There is no conscious feeling of guilt and no matter how he is analyzed no explanation of his condition is found. He has passed through the whole gamut of examiners, from the plain physicians to the best psychiatrists and psychoanalysts and none of their suggestions worked. His inclination to blush may be due to a conviction that he is too good for his work, that he could have accomplished more, but the recognition of this fact does not help him.

Another man developed a slight *limp* which comes and goes, and which, as the patient claims, is due to an intermittent "cramp" in the right calf. This, in turn, depends on his moods. In itself it does not

interfere much with the patient's business, but his attempts to cure it have ruined him. Of course, the omnipresent chiropractor was tried, also an Indian soothsayer, Chief Two Moon Neridasset. A private doctor treated him with electricity and a neurological clinic properly suggested that he leave well enough alone. There was no organic or physical illness whatever.

A third patient has been cured once, years ago, of a "gastric ulcer" simply because it was finally proved to him that he did not have it. He was quiet until involved in an automobile accident, which would not have amounted to much had it not been for this man's susceptibility to anxiety. He was sure that his *brain* was incurably *shattered*. None of the famous specialists and institutions he visited found anything positive or suspicious, except his abnormal state of mind. He was, however, able to work and earn a living for his family. His complaints began to be alive in the evening hours.

Mr and Mrs X *lived separately* in the same house. They would have parted altogether, but they agreed to stay on account of their child. They never spoke to one

another. He was busy in his shop, always ate out and went to a show alone. During the few hours he spent at home, he was "dizzy" and that was his complaint.

A woman presents herself to a throat specialist and is sure to suffer from a laryngeal and pharyngeal disease. No soreness, no pathology, no hoarseness. She is doing her housework, but with "great difficulty." She says "Some people can work in their sleep better than I when I am awake." Her entire behavior, the manner in which she describes her "ailment" point at once to some maladjustment, which is confirmed by further mental examination. Her complaint dates from the time when her husband with whom, by the way, she is living in harmony, lost his business and they became poor. Goodbye to cook and servant, large apartment, nice clothes! Patient had to attend to everything alone and her disappointment was great. Of course, not all the women, but those with some abnormal inclinations, will under similar circumstances, develop such disturbances.

Another woman also accusing her throat and complaining of "bucketfuls of mucus in long strings" although objectively there is no sign of that states that she is unable to speak or breathe while breathing perfectly and talking well and too much. She has been a widow for many years and still regrets her husband, whom she mentions tearfully. She is quite unhappy with her children, now all married inconsiderate and paying but little attention to her save for the few dollars a week which they give her. Her chief pleasure is the care she is taking of her husband's tomb. It is only recently

that she managed to have a "stone" put up over his grave by depriving herself of many necessary things. She is in the menopause for eighteen months, but is not troubled by that her throat symptoms antedating it at least a decade. As she puts it "Change of life is nothing, you suffer a little till all the devils are out and that's all!"

A very capable European electrical engineer with a responsible job in a great American plant is treated politely but coldly by his colleagues who are jealous of the high position occupied by this foreigner. He is all right at home, enjoys his family life, and makes his wife and children happy. But at work he suffers from a phobia, which forces him to walk along the walls as he is afraid of the middle of the large shop. When he must cross it he can do it only by carrying a hammer or other tool in his hands. This gives him the illusion that he holds on something.

'Otherwise I am healthy,' he said 'my stomach is strong. I can eat rusty nails.' While this is a mechanic's romanticism, it is true that he is physically well.

In some of these cases a complete restoration to mental health may be possible. But if not there is no great misfortune if the patient can be persuaded to put up with a handicap—and that in itself is a sort of cure or leading to a cure. Of course, this is not psychiatry proper and perhaps no one of these articles is, but they all deal with very frequent problems arising in everyday life.

611 W 158 St

NEW RESEARCH LABORATORY

E. R. Squibb & Sons announce the creation of an industry-supported research enterprise dedicated to pure science in the medical and biological fields comparable with the Bell Telephone and General Electric laboratories in the sphere of physics.

As one of the leaders in the pharmaceutical industry the Squibb company has completed a new laboratory building at a cost of \$750,000 in New Brunswick, N. J., to house the new enterprise under the name of the Squibb Institute for Medical Research. "Research activity, already under way, has been organized in four main divisions—experimental medicine, pharmacology

bacteriology and virus diseases and organic chemistry," the announcement said. "In addition the institute will operate a biochemical laboratory and a medicinal chemistry laboratory. The scientists will continue studies begun in the laboratories with which they were previously associated, and new lines of investigation will be opened up."

"Dr. George A. Harrop, formerly Associate Professor of Medicine in Johns Hopkins University and associate physician of Johns Hopkins Hospital, has been appointed director of research in direct charge of the institute. Dr. Harrop will also head the Division of Experimental Medicine."

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EDITORIALS

Special Session of the A M A House of Delegates

As we go to press the call of the national legislative body of the A M A is being answered. Elected delegates from all the constituent bodies composing this organization are assembling in Chicago in special meeting to ponder the instant problem presented to the profession by the recently held federal health conference, and perhaps related questions.

The delegates from our State Society go uninstructed. The situation presents three distinct problems. Through all these problems runs the ever-present concern of the profession to preserve the highest possible quality of medical care obtainable. The question of the delivery of such care to indigents is one problem, to which there is a corollary—namely, how long can the profession *alone* carry on this gratuitous service. Is not the indigent a problem of the community, rather than the profession? What form shall the community's obligation take in easing the burden that the profession now carries alone?

The so-called white collar class presents the second problem. Honest wage-earners whose family treasury is depleted by catastrophic illness—which deficit in the budget seemingly can never be made up—must be helped over this barrier.

This class-group is apt to become exploited, under compulsory health insurance. Thus far no specific scheme has amply demonstrated its adequacy, in helping to solve the problem their situation presents. Socialized medicine, state medicine, cooperatives delivering medical care, and medical indemnity insurance to provide the costs of medical care—each of these has its proponents, yet in each there are very debatable factors and implications which lower the quality of medical care.

Regarding both problems—that of the indigents, and that of the lower income group of wage-earners—it must be apparent to every one who knows anything of the practical side of the question, that the solution must be sought locally, and not nationally, and that what may be found to solve the question in one locality conceivably might be a quite untenable situation in another community.

The third problem involved concerns the extensions of public health agencies in many fields. No one objects to this, provided the taxpayer is protected by limiting these extensions to cover proven needs, and community desires. The inherent desire of officialdom to extend and expand its domain is almost axiomatic. Since the community through its taxes pays the bill, the community must be per-

mitted to have a voice in the obligation it assumes

We have but briefly sketched the very broadest outline of the problems which will be before the A. M. A. House of Delegates. It is everyone's desire to assist at seeking solutions. We may add it as our own wish, that the intricate problem will be met in a spirit of philosophic calm, that reason will surplant emotionalism in arriving at conclusions, and that the general public will credit organized medicine with this sincere endeavor to approach the problems open mindfully and with intellectual integrity

No Spontaneous Generation

Social workers and politicians who try to persuade us that compulsory sickness insurance is cheaper than private medical care would have us believe in the spontaneous generation of money. Actually spontaneous generation is no more possible in finance than in biology.

The most important element in medical care is the physician's service. Even the verbal camouflage of the advocates of sickness insurance cannot disguise this fact. The doctor must be paid, whether in private practice or under a government insurance system.

With the latter, in addition to actual medical fees there are the costs of a complex bureaucracy. Medical fees plus bureaucratic expense cannot possibly come to less than medical fees alone. It would not be feasible to make up administrative costs by a cut in the doctors' earnings because all competent observers concede that the average American physician is under rather than overpaid.

What of it, chorus the proponents of sickness insurance! Let the employers and the government pay. Labor need contribute only a third of the costs.

What are the facts? The employer passes his share on in higher prices, which the worker in his capacity of consumer must pay. The government raises its contribution by taxes, and these too, in

the last analysis, the mass of the workers and not merely a few "economic royalists" pay.

You thought it was the Administration's policy to "tax the rich," to help the poor, Mr. Worker? Let John T. Flynn, a highly competent economist writing for the *New York World-Telegram* open your eyes. "I personally favor the taxation of the rich. But I want to point out that it is worse than foolish to suppose that these vast outlays can be wrung from the rich. There is not that much in them. In the end it will have to be wrung out of the hides of the millions of workers who are being entertained now with the illusion that somehow their rich employers are going to foot all the bills."

Unwholesome Paternalism

Progressive education, allied with mental hygiene, attempts to make children self-reliant and independent, even at the sacrifice of unquestioning obedience. Their elders, on the other hand, are being taught to depend on the government for an increasing number of things. They get them, too—if they vote the right way! This intensified trend to paternalism in government, at the price of independence of thought and action, is highly demoralizing to the will and character of the people.

It is true that every one needs a sense of security, but that security must not consist of permanent reliance on aid from others. Undoubtedly millions of Americans have had to rely on governmental assistance for the necessities of life in the past nine years through no fault of their own. The government has every right and duty to furnish such aid. Its fault lies in encouraging the recipients of relief to believe they are a favored political bloc, with a chance of getting more and more from the state if they render blind political obedience to its heads. Such a course if persisted in, will reduce a large percentage of the population to a condition of perpetual infantile dependence and

complete personal irresponsibility—qualities no mental hygienist likes to contemplate

It has always been considered a fundamental biological and social law that parents provide their young with food, clothing, shelter, and medical care. Where parents have been unable to furnish the last named, for any reason, physicians and hospitals have always stood ready to supply the deficiency. Now, however, there are movements afoot to provide free health services for all school children, regardless of the parents' financial status, to give all expectant mothers subsidies whatever their means, and to furnish all infants with free postnatal service. Parents, in other words, are to be freed of responsibility for their children's health.

Any such step would be contrary to the basic laws of life and highly destructive to the character of the American people. There is no question but that the indigent must be cared for by the state and that many in the low income groups must be helped to obtain all the medical service they need. There is no cavil with the provision of free medical care—or any other aid—to those who really cannot help themselves.

There is a very valid objection, however, to the provision of free medical service for those who are well able to supply their own needs and who should be encouraged in thrift and self-reliance rather than dependence on the state. Unnecessary paternalism in government saps the initiative and resourcefulness of the people and is contrary to the tenets of sound mental hygiene.

Diphtheria Quickly Diagnosed

From the Bacteriological Institute of the National Department of Hygiene in Buenos Aires comes an extremely important contribution which affords the profession with a means for a rapid diagnosis of diphtheria.¹ A culture of the organism

can be obtained within three hours and identified both macroscopically and microscopically within that time. A suspected exudate wherever located, is collected with a cotton swab and is then moistened with two c.c. of the following mixture. To fifteen c.c. of meat broth with peptone there is added 1.5 c.c. of defibrinated ox blood and an equal quantity of a two per cent solution of potassium tellurite. The swab is then placed in a sterile test tube and incubated for three hours at 36 to 38° C.

At the end of this period a positive culture is evidenced by the appearance of small characteristic black colonies on the swab. These colonies yield the Klebs-Loeffler bacillus when stained and when injected into guinea pigs.

For rapid clinical diagnosis at the bedside, the following procedure is recommended. The pseudomembrane should be moistened with a two per cent solution of sodium tellurite. Within ten minutes a positive diphtheria becomes manifest by a black or grayish appearance of the membrane. Both of these tests have been carefully checked. Where diphtheria was absent, the tests were always negative. On the other hand, where there was diphtheria, these tests were in the largest proportion of instances, positive.

This simplified technic should make possible the elimination of carriers from all applicants for food handlers' permits. More important at this time is the value of such a bedside test to the novitiates in medicine whose clinical experience with this disease has been sharply curtailed by the effective prophylactic measures employed against it.

Sulfanilamide Therapy During Pregnancy

The field for sulfanilamide in the treatment of diseases produced by pathogenic organisms is daily increasing in its scope.

With the more accurate means for the control of side reactions and the

¹ J.A.M.A., 111 954, 1938

ability to estimate required dosage more exactly, the drug can now be administered with safety under careful supervision. However, there has been little recorded concerning the effect of sulfanilamide on the viable human fetus while the mother is undergoing treatment with this medication. Barker¹ estimated the free sulfanilamide content in the maternal and umbilical vein blood in seventeen instances and found almost equal concentrations of the chemical in both. It is evident, therefore, that the placenta is permeable to sulfanilamide. While in his cases the doses given were much smaller than those ordinarily given for severe infections, he feels that fetal complications are theoretically possible.

Barr² treated sixty-four cases of pyelitis occurring during pregnancy with doses of the drug which in some instances reached 24 Gm daily over a period of fourteen days. He found this form of therapy highly superior and more rapidly effective than all others and intimates that it will materially reduce the need for the interruption of pregnancy even in cases of severe pyelitis. What is germane to our topic is that in all but two instances, wherein a spontaneous miscarriage occurred the patients went to term.

This meager evidence of the apparent harmlessness of sulfanilamide in the fetal circulation is nevertheless far from conclusive. The frequency of infections during the course of pregnancy, which will respond favorably to the sulfanilamide preparations necessitates a more intensive investigation of the fetal reactions and the eventualities to be guarded against before its use during gravidity can be recommended with assurance of safety for both mother and child.

CURRENT COMMENT

"IT IS A MISTAKE TO LEGISLATE beyond our capacity to successfully administer."

¹ Barker R. H.: *New Eng Jour of Med.* 219:41 1938.

² Barr A.: *Glasgow Med Jour.*, 12:18 1938

said Sir Josiah Stamp "This basic thought cannot be too strongly stressed in discussing medical care problems, especially when compulsory health insurance methods are under consideration" adds the September *California and Western Medicine*

THE TRUST BUSTERS ARE TRYING to let go the tail of this bear they grabbed so innocently. Yet, instead of trying to save face, they might bring some beneficial results from their mistake.

They might by frankly facing the issue, disclose to public opinion that organized labor is encouraged to use methods to an extent to which the organized doctors use of those methods the trust busters have condemned. They might put the light on the fact that industry is flatly forbidden to do all what within bounds might be of public benefit and which labor unions are encouraged to carry to excess.

The trust busters might discover that the persons of small income who cannot meet the high cost of illness are the same who cannot meet the high cost of housing and living. They might discover that persons ruined by the cost of illness then cannot make payments of the Government loans made to encourage home building. The loans do not make housing any less costly but do make it easier to get into debt. Government might also make loans to pay the cost of illness but if the borrowers did not pay could not foreclose on the operation as may be done on the home.

The doctors might discover a method of assuring medical care to small income groups and also assure that they get paid for their services.

"The blunder that the trust busters made when they went after the doctors so far has aroused humor. It might better be used as an opportunity to produce a great deal of public good by restating the principle of equal rights to all special privileges to none."—Suggestions from the San Francisco *Chronicle* of August 17

IF THE WORK OF THE PLUMBER springs a leak, if the grocer sends snookies instead of snackles or if the reporter names W. C. Smith as co-respondent in the divorce story when it should have been W. G. Smith that means very little paint off anyone's fenders. But let the doctor make a comparable mistake and there is all hell to pay on top of the fact that maybe he stood to be swindled out of his pay—or most of it, anyway—even if he had done a bang up job.—Recent comment in the

"Fair Enough" column of our friend Westbrook Pegler

"THERE IS NO NEED FOR NEW FORMS of tax-supported insurance to be developed. Practically every U S community has tax supported methods of taking care of its helpless members or can develop such means. Let each man try to stand on his own feet. If we collectively make him prop himself up with tax supported insurance, the arches of his character are bound to weaken."—From a letter of Myron Weiss, Associate Editor of *Time Newsweek Magazine* to be found in the *Victor News* of August

"WE MAY SUSPECT THAT the health group is more solicitous for the well-being of a class of physicians who for one reason or another have fallen short of professional

success, than they are that none should be deprived of medical care. For this they would regiment the practice of medicine and establish it on a lower level than that to which it has been brought mainly through the efforts of the men who are now more vigorously opposing regimentation."—From the *Arizona Republic* of August 2

"A DOCTOR WORKING AS A FEDERAL official on a stated salary would spend a few hours a day waiting on his patients, and the rest of the time making complicated reports for another army of clerks in Washington to file away. Doctors would become mere hired help, putting in their hours, and looking ahead to annual vacations and eventual retirement pay. We want none of it."—A voice from Vermillion, South Dakota, recently, in the *Dakota Republican*

PLEASE PASS THE GUM DROPS

Fatigue, irritability and the low spirits of adults as well as children frequently can be rectified with a piece of candy, three authorities told the National Confectioners Association at its fifty-third annual convention at the Hotel Waldorf-Astoria in New York City.

The speakers were Dr. Walter H. Eddy, Professor of Physiological Chemistry at Columbia University, Professor Howard W. Haggard of Yale and Dr. Marvin (Mal) Stevens, head football coach of New York University.

Dr. Haggard said a child who was irritable, restless or cross after school should get a piece of candy, rather than a scolding. Irritability frequently is a sign of low sugar content in the blood and may be overcome by eating candy, he added. Candy is also "a prime dietary requirement" for tired mothers, workers who become fatigued in the afternoon and others who fall below their maximum efficiency, he explained.

Candy, or some other food rich in carbo-

hydrates, should be eaten at intervals throughout the day, he suggested.

Dr. Eddy, who was chief of the division of food and nutrition of the A E F, declared that candy was a wholesome food and should be a part of every one's diet. He emphasized its value as "an energy pick-up," pointing out that the nutritive and energy building qualities of candy made it an important factor in the World War in keeping men in the trenches at top-notch efficiency.

He denied that candy was an important factor in causing tooth decay, which, he said, probably was generated by dietary deficiencies or environmental conditions rather than by sugar fermentation.

Dr. Stevens, who is also Clinical Professor of Orthopedic Surgery at Yale, praised candy as the most valuable source of energy. He said it was particularly valuable to athletes, because it refueled their depleted energy reserve in a short time. By guarding athletes against excessive fatigue, candy is also valuable in preventing injuries.

HOSPITAL GIVES FLOWERS ALONG WITH MEDICINE

The University of California Medical Center has just prescribed a bouquet of flowers once a week to every patient in both hospital and public clinics.

Impressed by the peace of mind, the atmosphere of beauty and the general comfort that flowers bring to the sick, the staff of

the Center has entered heartily into the activity of its volunteer unit in supplying fresh seasonal blooms for every tray. So far as is known, this is the only hospital in the country that has made the regular distribution of flowers a part of its routine.—*California and Western Medicine*

Medical Economics

What's Rotten in Denmark?

FLOYD BURROWS, M D *Syracuse*

Like the ancient Argonaut's quest for the golden fleece, the practice of medicine is a stirring adventure. To those who embark upon such an exhilarating cruise for a life's vocation it presents a wonderful opportunity to benefit mankind. Its horizon is spectacularly broad and its contacts amazingly varied. It offers many diverse angles for consideration.

To some who become physicians it serves simply as a genteel way to make an honorable living. To others it expansively opens a vast intriguing field for scientific study and experimental research. To a few it yields a charmed, exalted existence which generates an artistic hunger as keen to create as that possessed by a genius in music, painting or sculpture.

To those so endowed who can compose a medical symphony with notes of disease conditions that will make a finer harmony for comforting the ill, who can paint the intricate picture of a subtle malady upon the canvas of Time so exactly realistic that its reproduction is a source of knowledge for succeeding generations, or who can resculpture a pathological human being into a painlessly living statue by perfecting a marvelous surgical technic, their lives in creative ambition and accomplished achievement must rank with those of a Mozart, Angelo or Phidias.

Only few of the thousands of doctors who daily plod to the bedside of the indisposed are situated strategically, blessed financially or equipped naturally to become brilliant scientists, original investigators or inventive surgeons. The mass of them must go their daily rounds unheralded, unapplauded, seeking in the dull gloom of a sick room to shed what light their knowledge and ability can bestow. Many times perforce it is but the flash of a firefly in midnight darkness!

Under present conditions they are forced to make their efforts produce enough financial emoluments to purchase food, clothing, drugs, automobiles, to pay office rent, secretarial hire, telephone service and the Lord only knows what else. They must obtain

this reward somehow to exist as practitioners. Their ideals may be as lofty as a mountain peak and pure sun-kissed clouds of holy aspiration may bathe their brows with honest moisture, but their fallen arches have to be planted on prosaic mother Earth's financial pathways which are none too smooth and very steep.

I do not intend in this paper to discuss the problems of the tonsil excavators who cultivate the pharyngeal soil so assiduously, the scalpel grand dukes who haunt the corridors of million dollar hospitals or those strategic dignitaries who shoot the ducks others scare up and whose income is often amazingly large. I plead for the great army of general practitioners who visit the sick day after day without glory or acclaim—often ill themselves from worry about the old mortgage and its overdue interest which they are unable to lift through their practice.

If there is anything that makes me want to cross swords with a man and ram a sizzling blade through his left ventricle it is to have him utter voluminous lamentations concerning how the finer ethics of the medical profession are being debased, prostituted and driven to the demnition bow wows by modern methods. Every once in a while some medical gent—usually vintage of three or four decades ago—will rise up on his astute hind legs and disclaim solemnly and in deep despondency over the commercial aspect into which his profession has sinfully descended in these unholy days of 1938. His viewpoint often sounds so lofty and noble, his audience almost becomes convinced that medicine has fallen into the hands of a bunch of crooks and racketeers, unless someone has the intestinal fortitude to state a few facts in controversy.

Not over fifty years ago, time was when one could buy Mary's little lamb for today's cost of a mutton chop, when a lusty rooster full of rampant hormones and an ambitious hen bursting with ova could be purchased for the price of a dozen eggs as they retail now, when a squealing shoat in a farmer's sty wasn't worth so much as two pounds of

pork chops are at present in an up-to-date white enameled butcher shop, and when a gallon of good "likker"—with a magnificent kick in it like a kangaroo's, to wash such victuals down—could have been obtained for what a bibulous individual expends at a cocktail bar for a Scotch highball!

Everything else was as cheap in comparison, including the expense of educating a man—if the process could be called such—to practice medicine. Probably a thousand dollars—or less—did the trick and put one in position to dabble with drugs and indulge in surgery of sorts.

When the medical neophyte was ready to hurl himself at a suffering and expectant public he could use a nook in his own home for an office and pack his armamentarium into a bag which today wouldn't hold his golf togs. He could purchase a horse and wagon for jogging to and fro to his patients for less than what he spends now in a year for gas and oil to propel his automobile. Pharmaceuticals and phones were about as extravagant an outlay as cigarettes and matches are at present. His whole ensemble was simple and not costly, so expenses were practically nil compared with what they are in this year of grace.

The overhead was a mere item and a physician if disposed could utilize spare time in an eleemosynary way without serious drain on his pocketbook. Everything jogged along at a slow and easy but safe gait. The currents of life ran less turbulently in that halcyon period.

But the "gay nineties" and before vanished like a pleasant, transitory dream. The epoch following the gala entrance of the fast and furious nineteen-hundreds—and particularly the mad period which has elapsed since the World war—has speeded things from less than ten miles an hour to sixty plus, until the modern world has become a far different place to cavort with pills and powders than it was in the days of Hippocrates or any of his merry followers up to the commencement of the twentieth century.

I doubt if today there is any other occupation which has so high a proportionate overhead expense as the practice of medicine. The low-priced era of visiting the sick on horseback by the M. D., with his saddlebags, and the M. D.'s use of his wife's sitting room for an office, has passed away like the inexpensive habit of courtship by bundling. The physician's-world has experienced won-

derful changes since Lister discovered antiseptics, and science has created an immense array of accouterments and paraphernalia for the promotion and acquisition of health.

In view of the radically changed conditions surrounding the practice of medicine in these depression months of 1938, as distinguished from those of former times, how can any grizzled gazebo—who perhaps magically has made and saved a sizable pile in sunnier days—strut about on lofty intellectual stilts and bemoan the fact that a doctor is unethically commercial because he begins to assert himself and demand pay for his services?

What does such a noble individual think—that God almighty will reach down in his pants pocket, hand out a big roll of mazuma and say, "Bless you my son—go in for science and humanity in a big way?"

Not on your life! Unless he marries it, inherits it, or dad coughs it up like a financial consumptive, he must go out and get it—at the bedside, or in his office—with the sweat of honest endeavor upon his brow and, often, with goose pimples as big as the warts on a toad's back on his spine.

Medicine, no matter how much it may be idealized by those who do not have to earn a living by practicing it, unquestionably has its business side, like every other legitimate means of acquiring a livelihood. One cannot run a sugar bush profitably, unless occasionally one taps the trees. A cutlery concern may manufacture durable knives and spoons, but the process of silver plating them is a vastly different and somewhat delicate proposition.

If doctors do not bore industriously for financial sap, or learn how to silver plate their professional wares, by being good business men, they are partial failures, no matter how gilt-edged their medical and surgical reputations for skill may be. They not only injure themselves from a lucrative standpoint, but worse yet, *they are creating a wrong heritage of business dealing with the public, to hand on to the next generation of their successors.*

The time has arrived when they must arouse themselves from a lethargic condition and take an active interest in the economic side of their profession. They can no longer afford to sit twiddling their thumbs reminiscing about the prosperous, carefree days when visiting the sick was like a picnic in fairyland.

At this point I want to reiterate and re-emphasize a query I have often made.

Why should doctors annually year in year out, give millions and millions of expense-exacting service for nothing? Why should they take care of all the indigent free of charge? Why shouldn't they be paid for hospital ward service and service in dispensaries and clinics? Why shouldn't the service extended to the indigent who apply for office and home treatment be paid for the same as their coal, groceries, rent, and other necessities? Why shouldn't the cost of all this be distributed by taxation *pro rata* on the population at large and not all fall on the shoulders of one class?

I am a firm believer that the medical profession has held the bag for the public long enough. I intend to advocate and agitate to the end that the cost of this tremendous load be distributed upon the population as a whole.

I am not imbecilic enough to imagine that doctors can bring about such an innovation overnight after they have fitted the millstone around their necks for generation after generation, nor so long as they suffer an unholy fear about their prestige being sullied if they strive to abolish this custom.

Personally I would rather my prestige endure a pang or two than to have to starve to death to sustain it.

I believe the time is here in these somewhat desperate days when a hospital staff doctor, or a dispensary doctor should rightfully demand and receive a nominal but reasonable salary to cover his time and service and the cost of going to and fro. I believe the general practitioner also who cares for indigent patients in their homes or in his office should be paid likewise. If I had received five hundred a year for such services since I entered practice I would be twenty thousand to the good now. Never a year but what I have rendered considerably more than half a grand of work gratuitously among the indigent in hospitals and homes.

While expatiating along this line not long ago to one of my happy go-lucky friends, he replied—like a rude slanderer—"Oh what the hell! If you'd got it, you'd have lost it in the stock market."

What I would have done with it—like the pea under the gambler's shell—is neither here nor there.

But the important fact remains if the business set up between the public and the

doctors was what it ought to be, I would have got it, and I would not have to tremble now as though I had paralysis agitans every time I whirl by a poorhouse.

I am optimistic enough to believe that what is right will eventually prevail if sufficient critters, like myself who hunger for the right, will howl loudly and long and sound their wail in a direction where it will attract prompt attention.

The members of the medical profession have influential friends in all walks of life.

If they worked extensively, energetically, and indefatigably as a body in an educational manner among their patients, explaining their trials and tribulations much could be accomplished and eventually the politicians could be persuaded—or forced—to come across.

Before you jump with the agility of a grasshopper, to a negative conclusion on this point or pooh pooh yourself black in the face over it, remember the public is already going along part way even as things are now. In practically every general hospital the public is paying to a considerable extent for the care of an indigent board and hospitalization. It is already hospital-conscious. It should be—and can be—made pecuniary munded of its obligation to physicians also.

So long however, as doctors continue to lazily and listlessly lean back in languid fashion against the enervating upholstery of the "Can't Club," they will journey on in the same aimless old fashioned manner—every man for himself and the devil take the hindmost.

Frequently wonder is expressed whether the simpletons called doctors really are being victimized by private individuals, eleemosynary institutions and municipal clinics, and whether to place the onus on a rapacious public.

I maintain that doctors have victimized themselves. have encouraged others to victimize them, and so have nobody to blame but themselves. For hasn't it been the usual spirit of the noble profession to look with disdain upon filthy money and to saintly pose as being interested in science only? Hasn't it been regarded as good business to give the impression of always being busier than H—with more patients to look after than one knows what to do with and so create the mistaken idea that money is just rolling in from an inexhaustible source?

Money!

Is anything ever said about money in medical school—except when the tuition is overdue? Why the fellow who harbors such a low, undignified thought is regarded an unfit person to study medicine—much less practice it!

In a little weather-beaten Methodist meetinghouse—where as a phenomenal juvenile devil I used to dig into scriptural literature with a zeal almost sublime, until I acquired an astonishing store of Bible knowledge upon which to draw through the years—I learned in my exploration of Genesis how Esau sold his birthright for a mess of pottage.

And so I wonder sometimes—when I studiously survey the glorious realm of physic with its lofty mountain peaks of hope and its grim, deep valleys of discouragement, or attentively listen to the various medical arguments concerning its policies and politics which go on endlessly wherever doctors assemble—if, alas, my profession, like Esau, isn't also indifferently bartering away its birthright.

Not long ago on the elevator in the building where my office looks out over a medical college and a free clinic connected with it, a colleague remarked that the day before he took care of twenty-five patients in the dispensary and two in his office!

After several such disheartening episodes he, or any other doctor, is not inclined at 3 00 A.M. to sit on the edge of the bed—sore bunions and corns dangling in the cold—and hilariously sing "Glory Hallelujah" until he wakes the baby.

But he has nobody to blame but himself for being a party—and a victim—of such a deplorable situation. He should remember the free work performed in clinics and in hospital ward service is not done by automatic machines, but by doctors who often hunger like a ravenous animal to slave away on people who many times are in better financial circumstances than themselves.

All for what may I ask?

Perhaps for the notion they gain an edge on the other chaps who either have not, or do not want, such a clinical connection.

Did you, who are doing hospital staff work or giving free service in a dispensary clinic, ever sit down and seriously ask yourself these salient questions?

Am I doing this work just to follow an old moldy medical tradition?

Am I doing it simply to increase my prestige?

Am I doing it solely to enlarge my experience?

Am I doing it purely from a philanthropic or altruistic purpose?

Am I ever seriously considering what effect this donation of service is having indirectly on the welfare of my fellow doctors?

Why not be honest with yourself sometime and see what the answer really is?

From my standpoint I do not see why any physician should assume that his occupation inherits a more religious flavor, or a holier perfume, than the occupation of a barber, baker or banker, or why such a career is analogous to the life of Christ any more than that of a paper hanger. A doctor doesn't save his patients by prayer any more than a veterinarian does a dog or a jackass. Why then should he humbly appropriate the prerogatives of a monk, a nunister, or a missionary? Why should he pass the collection plate like a mendicant with a meek give-me-what-thou-wilt attitude? Or why should he be expected to graciously work for nothing and board himself? He is not a sky pilot, he is an artisan as much as a watchmaker or an auto mechanic. The mechanism he tinkers with is the human machine and his repair shops are not churches or sanctuaries but his office and the hospital. He is as justly entitled to his wage as any other worker.

Far be it from me to decry religion or belittle holy communion with the Savior if it makes a doctor happier or gives him a psychological reaction which increases his skill and efficiency. I have only the deepest respect and reverence for those who submissively follow its precepts and practice its teachings under whatever creed their conscience dictates. But if you get right down to brass tacks, doctoring carries no more obligation to "take up the cross, follow me" and be crucified by poverty, through working without pay, than the vocation of a mortician or a choir singer.

Some of the greatest physicians I have known have had the least religion in their systems—seemingly. Whether they have gone—or will go—to heaven I'll have to discover when I get there.

I did not enter the medical profession to win a halo, be anointed a saint, or undergo martyrdom. I entered it because it particularly appealed to me as an interesting and honorable way to work out a successful

career The life of a farmer did not allure me, I felt certain I hadn't the oratorical gift of gab for lawing it, and while piety oozed out of my system like perspiration on a hot day—as it once did from all good country boys—I realized my knees were too frail to hazard their destiny by pounding them through the years in an ecclesiastical fashion on the rough floors of various sanctuaries, and there was no other job in sight on life's grindstone for sticking my nose against through several decades that dazzled my fancy. What a lucky break for medicine!

I had the idea then—and I have always retained it—that a doctor's life is not a poetic dream of Utopia or a sort of modern Garden of Eden in which the fruits of life are provided by fairies. I considered it—and I so consider it—an occupation whereby a person by study skill persistent application and hard work—and lots of it—is entitled to win a competence the same as any other industrious individual in his legitimate vocation *unless the cards are stacked against him*.

I never considered it—and I do not consider it now—the means to acquire great wealth. But I believe a medical man, if he yields his best to the sick, should have the right to obtain a return from his labor sufficient to place him beyond the point of being engrossed harassed, and engulfed by financial worries. I believe he is entitled to at least a modest home, good clothing, nourishing food a vacation occasionally, a reasonable amount of travel access to medical meetings, the privilege of rearing and educating a family, and the acquiring of a reasonable sufficiency for his old age.

Approximately ten years of life go into the making of a physician. The expense of his education is as many thousand dollars or more. Even if he is exceedingly diligent and thrifty he is at least thirty years of age before he has an earning capacity to make both ends meet.

When he starts he must equip himself with a suitable office furnish it with much lavish apparatus and many expensive dew daddles procure a durable automobile and keep himself up to the minute. Patients today demand the use of costly gadgets. If a man is to successfully compete with his brethren he must possess and utilize them. They all cost money and how! He must meet practically all his expenditures each month in cash. But before the "do-re me"

flows into his office with a pleasant gurgling sound—like a sylvan brook purling over golden nuggets in a Klondike valley—or he begins to realize on his investment—sufficiently to have bankers and brokers serenade him with a brass band—he must establish a book account of several hundred dollars. This will be owed to him by delinquent patients who have been allowed to skate merrily along in the serene belief that paying the doctor's bill last is the acme of an alert accomplishment.

This amount, as the years roll relentlessly by, will grow increasingly and disturbingly in size until he dies. It will be one of his unique assets which won't be worth enough to procure a simple wreath of forget me nots to lay on his humble casket.

The records show that the average doctor in this vale of tears and rascality, dies before he reaches the age of sixty. If he is to recoup the cost of his education, reimburse himself for the years spent as a student earning nothing and acquire the essentials I have enumerated, he must travel with the dogged speed of an Aesculapian marathoner and hoard his pennies with the thrifty zeal of a Scotch miser during the thirty years vouchsafed him for accomplishment.

A survey of the surrogate's files will surprisingly show how many, many, woefully drop by the wayside financially exhausted before such an accomplishment goal is reached.

This is something to thoughtfully consider when one is expected to burn up vital energy and consume valuable time in an extravagant fashion working without pay—energy and time which could be capitalized profitably, for procuring useful ammunition to keep the wolf off the business doorstep. It is a worthy idea which ought to generate as much mental strain in smoking room discussions as is customarily expended upon the ogre of state medicine—discussions which sway and scorch the branches of the medical tree like a hurricane of hot air but which never seem to formulate a successful plan for safeguarding its roots.

If a man wants to make an expenditure of time, struggle, and money and then become a medical missionary why doesn't he fare forth among the Eskimo or go to China or Timbuctoo or some other destitute God forsaken place hang out his shingle and wait for manna to descend from heaven to succor his various pangs instead of hanging around in unfair competition with his fellows

who have to make a living out of their profession?

There should be no place in our nation where medical missionaries are needed, permitted or tolerated. This country is prosperous enough, if things were managed properly, so that every destitute person could be provided with excellent and ample medical care and doctors giving it could receive suitable remuneration. *Nor would this arrangement have to come about by the institution of state medicine*

Disagreement may be found with much I say, but if I arouse earnest constructive thinking and plant a helpful idea or two in a receptive brain my purpose will be served. Doctors love to experiment with new cures, new technics, new operative procedures, often in an amazing and daring fashion. But when it comes to adventuring in new business ideas, their feet get as cold as a knot hole in the North Pole.

It is a strange and mysterious syndrome, like delusions of grandeur or other quirks of mental aberration, how they can be so keen and alert in the professional realm and ignore indifferently and carelessly the commercial realm. Like knights of old, who nonchalantly bandaged one eye when jousting, they unnecessarily handicap their capabilities for success.

If medicine is just a hobby—a hilarious pastime, with its varied paraphernalia your playthings, out of which a big scientific kick is obtained, pay or no pay, and you are satisfied to plod along, not caring a hoot financially whether ends meet or not, so long as you can rapturously exclaim, "Ain't I got fun?"—then disregard my ideas and jimmy an entrance at once into some somber, statistical sepulcher of knowledge. After all, contentment is a supreme achievement!

What medicine needs now is not a company of lackadaisical Chinese-like soldiers to fight feebly in a resigned fashion defending an out-moded antiquated scheme of things, but several regiments of aggressive Japanese go-getters who know what they want and who go out and get it, even if it

means a battle. Too many M.D.'s are so intimidated by the specter of state medicine their nervous systems flutter as tremulously as a republican banner in a democratic whirlwind.

I love my profession despite its vicissitudes, its bitter discouragements and its often unrequited hardships. I want to see it universally successful and I want to attain reasonable success in it. I want to point to it with pride and glory in its achievements. Therefore I cannot sit mutely by and not endeavor to raise its economic and professional standards even though it may only mean establishing another beautiful example of "love's labor lost."

In conclusion I want to propound some pertinent questions. I hope they agitate enough brain cells to create a headache rather than a pain in the neck.

If an indigent criminal on trial for murder can have the court appoint a lawyer to save his life, who will receive pay from the county for doing it, why shouldn't a doctor be paid by the public for trying to save the life of an indigent person condemned to death by cancer, tuberculosis or any other serious malady?

Does the noble legal profession work for nothing? Does the public exalt them less because they demand and receive pay for their services? Do plumbers go to the dwellings of the destitute and repair their toilets free gratis? Does anyone employ them less on account of this?

Do masons lay brick—do carpenters drive nails—do bookkeepers bookkeep—do electricians electrify—do school-teachers teach without pay?

How many laborers would go to work on Monday morning, sweat through the week, and get a quarter, or a half of what they earn?

Would a stenographer do it? Would a railroad engineer do it?

Then why in the name of heaven should a doctor be expected to do it?

Verily, verily, I say unto you "something is rotten in the medical state of Denmark!"

One of the questions on the Hygiene paper, in the June State medical licensing examination, called for three important reasons for registration of deaths. One candidate, as one of his three reasons, gave

"Shows increase or decrease in the popularity"

The new St Francis Hospital at Olean was dedicated on July 4

Public Health News

Public Health Notes

J ROSSLYN EARP, L.R.C.P., Dr P.H.

New York State Department of Health

The Pursuit of Contagious Syphilis

Since Munson¹ and Smith and Brumfield² reported that it is possible to discover the contacts of cases of contagious syphilis, a whole new field of epidemiology has opened up. Granted unlimited funds and adequate personnel, syphilis could rapidly be brought under control. But the cost of investigation has to be taken into account. The time has not yet arrived to present precise calculations but it is evident enough that the law of diminishing returns is in operation. Some contacts are discovered in the doctor's private office at no cost to the State. Others are found by the public health nurse working with the private physician at his request or working with a public clinic. Some cannot be discovered with the resources of present day epidemiologists.

These things being so it becomes the part of wisdom to reduce to the practicable minimum the number of contacts at large by keeping under treatment the known infectious cases so that they cannot give rise to new ones. The first step in this direction is the education of the patient either by the private doctor or the staff of a public clinic so that he or she fully appreciates the importance of adequate treatment. The patient should understand that no consideration of cost or inconvenience can weigh against the importance to himself of a full course of treatment and that the community in self protection will go to great lengths to give whatever help may be necessary to him to bring him beyond the stage of possible relapse. But it is hard for the patient much harder than for us to believe that he is still ill when he feels well. So patients do forget to come for treatment infectious relapse occurs and new contacts arise.

New York's district officers puzzled for awhile how they could learn about the delinquents from private practice. Then one of them had the bright idea of writing to the doctors to find out. This plan has worked so well that one district officer

after another has adopted it. A recent report from one of the districts relates that within ten days sixty five per cent of the letters are answered within thirty days eighty-five per cent of them.

Opinion is not yet fully crystallized on how much time should be spent in pursuing delinquent syphilitics in order to keep them under treatment. And yet sometimes the health officer is content to spend a good deal of time and energy on a single case as the following story written by one of our staff will show.

During the course of a routine visit to Dr L. of R., he informed me that he had examined one M.H., whose blood serology was reported with a titer of greater than ten, and who presented multitudinous secondary skin and mucous membrane lesions of a type known to be infectious. This young female, a confirmed delinquent vagrant, never returned and he referred the case to me. I trailed her through parts of Schoharie County into Greene County and although failing to locate her, I did learn of places she frequented. The case was referred to the health officer of the Kingston district and the supervising nurse of that district trailed her back into our district to a remote spot in Delaware County. Realizing the futility of attempting to keep such a vagrant under treatment, the State Police were called into the case. She was promptly arrested, charged with vagrancy and under division four of section eight hundred eighty-seven of the Code of Criminal Procedure, was sentenced by the County Judge to the Westfield State Farms at Bedford Hills for two years. It might be stated that this girl remained at large fourteen days after Dr L. informed me of her infectious condition and habit of vagrancy.

Not all delinquents would provide a health officer with so great an incentive for the chase. Doctors aware of such conditions would do a public service in telephoning the health department rather than waiting for a routine visit.

References

1. Munson, W. L.: *Amer Jour Pub Health* 22: 134 1932
2. Smith, D. C. and Brumfield W. A., Jr.: *J.A.M.A.* 101 1935 1933

Brooklyn Council Veterans of Foreign Wars, has launched a campaign for a new

veterans hospital to be located in central Manhattan.

Medical News

Monroe County

ROCHESTER DOCTORS BOWED to Rochester lawyers in their golf meet at the Brook-Lea course on August 25, by a score of 98 to 55 Drs Trainor and Large led the M D's with scores of 81

THE CENTRAL TRADES AND LABOR Council of Rochester has asked the views of the Monroe County Medical Society on health insurance and group health plans A movement is afoot in the labor ranks to demand membership control of the local hospital service corporation

New York County

THE NEW YORK ACADEMY OF MEDICINE will hold a stated meeting on October 6, with this program

Evaluation of sulfanilamide therapy
First Fundamental problems of chemistry and pharmacology—mechanism of the action by Dr E K Marshall, Baltimore.
Second Clinical aspects by Dr Reuben Ottenberg Discussion will be by Drs Emanuel Appelbaum, Homer F Swift, William E Studdiford, and Francis G Blake

A SYMPOSIUM ON chronic ulcerative colitis was held by the Department of Medicine of the New York Post-Graduate Medical School and Hospital on Sept 23, with a long list of important speakers The guest of honor and principal lecturer was Dr P Manson-Bahr, Senior Physician, Hospital for Tropical Diseases, and Director of Clinical Tropical Medicine, London School of Hygiene and Tropical Medicine

THE NEW YORK POLYCLINIC Medical School and Hospital announces the opening of the Urological Department in its new clinic building The medical profession is cordially invited to inspect this department, which is under the supervision of Drs Joseph F McCarthy, Daniel A Sinclair, David Geiringer, Howard S Jeck, and their associates

DR JOHN MARTIN WHEELER of New York City, a leading ophthalmologist, died at his Summer home, Underhill Center, Vt. on August 22 He was fifty-eight. Best known as the surgeon who operated upon King Prajadhipok of Siam in 1931, Dr Wheeler had many other notable operations to his credit and was the recipient of the

Leslie Dana gold medal in 1936 for his "outstanding achievements in the prevention of blindness and the conservation of vision" He served as a captain and later a major in the United States Army Medical Corps during the World War Assigned to reconstruction work among the wounded he devised new techniques in plastic surgery applicable to the eye and related structures

DR FREDERICK TILNEY, of New York City, one of the foremost brain specialists of the country, died on August 7 at his summer home in Oyster Bay, L I He had been ill for several months He was sixty-three A paralytic stroke, of the severity which would persuade the average man to go and sit in the sun in Sorrento for the rest of his life, says the New York *Herald Tribune*, hit Dr Tilney in 1925 and succeeded only in laming him slightly physically and sharpening his intellect to such an extent that he became probably this nation's foremost cerebral neurologist While he battled to recover first his speech, then the use of his right hand and leg, he injected life blood into the dying Neurological Institute, merged it with the Columbia Presbyterian Medical Center, then expanded it so that it could use the New York State Training School for Boys at Warwick, N Y, as a clinic.

DR. EMIL ALTMAN, chief medical examiner of the New York city school system has renewed his plea that the city's public school teachers be required to submit to a periodic health examination for their own protection and for that of the children in their classes

Teachers suffering from various types of communicable diseases endanger the health of their pupils, Dr Altman said, pointing out that frequently teachers do not know that they are ill until the disease has advanced to an acute stage Periodic health checkups would uncover such diseases before they become advanced, the physician affirmed

"I am constantly recommending periodic health examinations for teachers for their own benefit," Dr Altman said "The impression seems to be abroad that we are trying to injure teachers through these examinations This is emphatically not the case I wish the teachers would show more confidence in the Medical Board"

The chief medical examiner explained that physicians provided by the Board of Education would make the periodic exam-

inations. Copies of their reports would be provided to the teachers, who would take them to their own physician for remedial treatment.

"I would like to see the Board of Education engage the best physicians available, specialists in the various fields to make these examinations" Dr Altman went on. "If that were done we could raise health standards among teachers."

A large number of teachers will return to duty with some disease of which they are unaware because they have not had their health checked, the physician continued.

He pointed out that he has been urging health tests for teachers for several years but has never met with success. This is due largely, he said to the teachers' attitude of distrust.

THE RECENT ARTICLE on rabies in the *AMA Journal* has caused some of the New York City newspapers to look into the situation in the metropolis. Rigid enforcement of regulations has held the death rate from rabies in New York to a minimum. Despite an average of 25 000 dog bites reported to the department each year no one died from the disease in this city last year and only one person has succumbed to it so far this year.

Department of Health regulations in New York City require the reporting of all dog bites. The victim's wound is cauterized with nitric acid immediately and the dog if captured is held at the Department's shelter for examination. If he has rabies the symptoms will appear within ten days and the Pasteur treatment of injections is given the victim twice daily for about two weeks.

In cases of severe bites or bites about the face, where the germs can travel to the brain in a short space of time, the Pasteur treatment is instituted a once without waiting for the examination of the dog. The closer the bite to the victim's central nervous system the quicker the fatal results of rabies.

DR. LEROY W. HUNNARD director of extension work of the Georgia Warm Springs Foundation and its first chief surgeon died on August 31 at the Clifton Springs Sanatorium. He was eighty-one.

Niagara County

MEMBERS OF THE Niagara County Medical society met at the Niagara Frontier Golf club on Aug 25 for their annual stag picnic. Dr Clyde W. George of the Niagara Sanatorium staff was general chairman.

The program included golf and a dinner. A program of entertainment was given in the evening.

Dr Forrest W. Barry and Dr Charles Dake were other members of the committee.

Oneida County

THE ANNUAL JOINT MEETING of the Utica and Syracuse Academies of Medicine was held on September 22 at the Teugega Country Club at Rome. After golf a dinner meeting was held with this program.

1 "Latest Insulin Treatment of Dementia Precox" by Dr L. Laramour Bryan, Marcy State Hospital.

2. Myasthenia Gravis' by Dr Harold H. Dodds, Marcy State Hospital.

Onondaga County

DR. FREDERICK H. FLAHERTY died on September 7 at the age of sixty five.

Dr Flaherty was president of the State Medical Society in 1933 and was a trustee and former vice president. He was also a former president of the Syracuse Academy of Medicine and the Onondaga County Medical Society a fellow of the American College of Surgeons and a member of the American Medical Association.

He was the author of 'Treatment of Strangulated Hernia' 'Complete Avulsion of the Scalp' 'Traumatic Diaphragmatic Hernia' 'Hernia in the Aged' and 'Tetanus in Clean Surgery'.

Orange County

DR. ARCH BURT CHAPPEL, who died on August 28, at the age of fifty-five, was a former president of the Orange County Medical Society. (See page 1309)

Westchester County

DR. DEAN LEWIS of Baltimore, addressed the Medical Society of the County of Westchester at its meeting on September 20 on "The Effect of Ovarian Hormones on the Breast, Pathologically and Normally."

THE WHITE PLAINS MEDICAL SOCIETY held its final golf match of the summer sports season and its annual dinner on September 21 at the Gedney Country Club. The committee in charge of the golf tournament was composed of Doctors L. B. King, Roy D. Duckworth and Arthur Strauss.

Hospital News

Diagnostic Clinics Suggested

THE NEWLY ELECTED PRESIDENT OF THE American Hospital Assn, Dr G Harvey Agnew, makes the interesting suggestion that in the larger centers the hospitals cooperate with the medical societies in setting up diagnostic clinics to which the doctor may refer patients when he wishes an expert diagnosis, after which they would be returned to him for treatment. A number of such clinics are already in operation, he points out in *The Modern Hospital*, with benefit to both patient and physician.

It hardly needs Dr Agnew to remind us, of course, that the results of inaccurate or delayed diagnosis are prolonged illness and incapacity, and, too often, loss of life. Earlier and better diagnosis, then, means shortened illness and less expense. How can this be done, he asks, and replies:

The obvious answer is the setting up in selected centers of clinics or offices in which accurate diagnoses can be made, not free, but at a cost sufficient to meet the overhead. Obviously, accurate diagnosis is possible only if highly qualified consultants and specialists and the best in equipment are utilized. This setup costs money, for the professional services should be well paid for. The saving to the patient is effected not by reducing medical remuneration but by the greater economic efficiency of a system wherein the time of consultants and specialists is conserved. More patients are seen *per diem* and the cost of equipment, of nursing and technical staff salaries and of general office overhead is divided over a greater number of units of patient-service *per diem*.

A Sound Ethical Basis

What body or bodies should sponsor these clinics? In his view, "the logical arrangement would seem to be a hospital working in cooperation with the local medical society," for "the hospitals have the necessary local equipment and may already have a non-pay outpatient department," so that "duplication of equipment in such instances would be quite unnecessary." The medical society should be invited to cooperate, "not only to ensure the sympathetic cooperation of the profession at large," but to "warrant developing the clinic right from the first on a sound ethical basis."

Dr Agnew reminds us that a number of clinics of this pay type are now in operation. They are of various sorts.

Some are for diagnosis only and upon reference by the personal physician. An example is the clinic at Mount Sinai Hospital, New York City, at which patients of limited means, if referred by their personal physicians, receive a diagnostic checkover. The Massachusetts General Hospital has a consultation clinic which accepts patients for diagnosis only when referred by their physicians, to whom the report is sent directly. The diagnostic clinic at the Johns Hopkins Hospital accepts only referred patients and only those unable to pay for private consultation service. This applies also to the consultation clinic at the Pennsylvania Hospital in Philadelphia and to the diagnostic service in the Diagnostic Hospital of the Boston Dispensary.

Other clinics are for diagnosis only but not necessarily for those referred by the personal physician. An example is the William Volker Clinic at the Research Hospital in Kansas City, Mo. The diagnostic and health service of the Boston Dispensary (as apart from the service in the Diagnostic Hospital) is not limited to referred patients.

Some pay clinics give either diagnosis or treatment, or both. This is possible at the Pennsylvania Hospital (apart from the consultation clinic), at the evening pay clinic of the Boston Dispensary, at the Vanderbilt Clinic in New York City, and at the Max Epstein Clinics at the University of Chicago.

With the exception of the last clinic and the William Volker Clinic in Kansas City, the patronage is strictly limited to those of moderate means. Charges for diagnosis vary from \$7.50 or \$10 to \$25 or \$35.

The Fundamental Issue

Perhaps the most fundamental issue is the preservation of the existing relationship between patient and private physician, for when a clinic accepts paying patients for treatment as well as for diagnosis without a request from the private physician, it is in direct competition with the local practitioners.

This may adversely affect their support, although difficulties would appear to be minimized if patronage is limited to those of small income. If, however, says Dr

Agnew, its services to paying patients are confined entirely to diagnosis and such patients are sent back for treatment, this relationship to the family or personal physi-

cian is preserved and the likelihood of further reference of patients to the clinics by him is greatly increased, particularly if patients are accepted only when referred

Newsy Notes

THE POSSIBLE MERGER OF Beekman Street Hospital and Broad Street Hospital in lower Manhattan, is being discussed. The latter institution filed a voluntary petition in bankruptcy on April 8

RECENT NEWSPAPER PUBLICATION of the fact that Loomis Sanatorium pioneer tuberculosis hospital, near Liberty, was threatened with extinction as a result of financial difficulties has brought sufficient aid to enable the hospital to remain open into the early fall, it is announced by Edward C Rowe, president of the board.

COHOES HOSPITAL has discontinued its school of nursing

THE REV JOHN P BOLAND, chairman of the State Labor Relations Board told 300 nurses gathered to celebrate the first anniversary of the eight hour day in New York City hospitals on July 1 that the Catholic Hospital Association of the United States and Canada has taken a stand in favor of unionization.

Father Boland was loudly applauded by the members of the Hospital Division of the State, County and Municipal Workers of America, a C. I. O. affiliate which includes hospital workers in city institutions.

A MOVEMENT TO HAVE THE CITY reopen St. Marks Hospital, Second Avenue and Eleventh Street, Manhattan, as a maternity center is reported gaining support on the lower East Side

Petitions addressed to Mayor LaGuardia and Hospitals Commissioner Goldwater, citing the lack of proper maternal care for many East Side mothers and asking that the now unused hospital buildings be devoted to meeting that need are being circulated

The hospital, operated by a private group for many years closed its doors on August 5 1930 for lack of funds and a year later went into bankruptcy. The property is owned by the city

THE SIXTY SIX MEN AND WOMEN who received their Doctor of Medicine degrees at the fortieth annual commencement of the Cornell University Medical College were advised to shun automobiles, girls and motion pictures during their internship. The advice was given to them by their commencement speaker Dr Rufus Cole, who retired last year as director of the hospital of the Rockefeller Institute for Medical Research.

Dr Cole declared that at present the intern system in many hospitals was weak and he attributed a considerable part of this weakness to the inability of interns to devote themselves wholeheartedly "to the business of becoming medical men and scientists. A doctor, Dr Cole emphasized, must not cease being a student upon receiving a degree

"Keep your affections in cold storage while serving your internship. If you are too poor to have an automobile, consider your poverty a blessing. A young doctor should devote himself entirely to the cultivation of science while serving as an intern."

VOLUNTARY HOSPITALS IN New York City contributed more than \$9,000,000 in caring for city cases in 1936. Howard S. Cullman, president of the Beekman St. Hospital said in addressing the annual conference of the New Jersey Hospital Assn. in Jersey City's Medical Center

Mr Cullman declared there were 2,744,138 public charges given care in voluntary hospitals in New York that year, the latest for which figures are available.

"For such of these as were acute medical and surgical cases" he said voluntary hospitals were reimbursed by the city at the rate of \$3 a day. For chronic cases children under five, tuberculosis patients and others a lower rate was paid, the average for all cases being \$2.02.

"The average per diem cost of care in voluntary hospitals is \$5.62. Thus a very substantial subsidy has been granted from private philanthropy to the municipality"

THE RETIREMENT OF Dr George R Critchlow from the staff of the Millard Fillmore Hospital in Buffalo, after 40 years of service, was marked by a dinner given in his honor at the Buffalo Club on June 28, and the presentation of a gold medal and a bag of golf clubs

SOMETHING NEW IN HOSPITAL decoration are the murals that now cover six rooms of the free children's ward of the Jewish Hospital in Brooklyn

Their theme is the idea of Louis M Rabinowitz, director of the hospital, who, with Mrs Rabinowitz, financed the painting by Albert Cugat. Each of the rooms depicts a different children's story. One presents scenes from "Alice in Wonderland," another scenes from "Snow White and the Seven Dwarfs." A third is the "Three Little Pigs" room and another brings to life many popular nursery rhymes. A fifth room is designated as the "Pinoc-

chio Room" and the sixth offers "Children of Many Nations," in scenes typical of their nationality

"It has always been my wish," Mr Rabinowitz said, "to give the children who come to the free wards of this hospital some of the niceties of life and at the same time make them feel they are in a kindergarten rather than a hospital"

THE NAME OF THE Brooklyn Home for Consumptives, 240 Kingston Avenue, Brooklyn, will be changed to the Brooklyn Thoracic Hospital as the result of a resolution adopted by the home's board of managers. The change was decided upon in view of the possibility that a reduction in the incidence of tuberculosis may make it desirable to extend the service of the institution to include other diseases of the lungs and thorax, and because of the psychological effect of a name implying advanced scientific procedure

Improvements

THE NEED FOR ADDITIONAL facilities is so great that New Rochelle Hospital could not wait longer for the public to contribute the needed funds to launch its building program

So that work could start immediately, the hospital has arranged for a loan of \$200,000. An eight-story addition is planned to bring the institution up to the needs of the community

THE NEW INFIRMARY BUILDING at the Pawling Sanitarium, to be financed mainly by PWA funds, will be erected on the hill-top east of the present main building. It will be of brick, two stories high, and have

125 beds. The cost is to be \$500,000, or less if possible.

VETERANS OF WASHINGTON COUNTY are seeking to have a United States government hospital for women veterans located in the northern part of that county and are seeking a suitable site

SISTERS OF THE POOR OF St Francis at Warwick will award contracts later this year for the erection of a modern hospital on Grand Street

The addition will be four stories high and will accommodate from thirty-five to fifty patients

At the Helm

THESE HOSPITAL OFFICIALS HAVE BEEN CHOSEN. Dr Hans Joergenson, to be chief of staff of the Eastern Long Island Hospital

Dr Max Pinner, to be chief of the division of pulmonary diseases of Montefiore Hospital

Edwin S Knauss, to be president of the directors of the Vassar Brothers Hospital at Poughkeepsie

The Rev Mother Mary Assunta, O S F,

to be superintendent of the new St. Francis Hospital at Olean

Dr Charles Martin, of Albany, to be president of the Northeastern New York Hospital Association

Dr Albert L Fagan, to be chief of staff of the Herkimer Memorial Hospital

MISS FLORENCE HICKOK, superintendent at Cohoes Hospital for three and one-half years, has resigned

Medicolegal

LORENZ J. BROSNAN ESQ

Counsel Medical Society of the State of New York

A Cancer Cure Enjoined

Recently the highest Court of one of the Western States handed down a decision in a case involving the abatement of a so-called 'Cancer Cure' which is of considerable interest to the medical profession.*

The proceedings were instituted by the Attorney General against one C to enjoin him from the alleged unlawful practice, and unlawful advertising of the practice of medicine.

The defendant C was a man eighty six years of age who claimed to have acquired some knowledge concerning the cure of cancer from his father. For many years he had sold certain household remedies, and it seems that after inquiries had been made to him by others he had finally prepared a compound of his own, for use in treating cancer. The remedy was in the form of a paste which was applied to the affected portion of the body.

In the front yard of C's house there had appeared a sign as follows: 'Cancer Home—We Guarantee to Remove & Kill Cancers—Or No Pay—Without Knife—Radium—X-ray or Electricity—W W C.' An advertisement issued by defendant had read as follows:

Cancers. Attention. Cancer is a very old disease. We can trace it almost as far back as we have knowledge of civilization. Familiar to the earliest physicians it has persisted through the ages and is baffling their efforts as effectively today as it did hundreds of years ago. And it is a fact that there is no dangerous disease so easily cured as cancer and none more dangerous if neglected too long or improperly treated.

We guarantee to kill and remove them—or no pay. Over thirty years successful practice and no failures. Proof of success is success itself. Write and we will send you the proof. W W C. Mgr. The Cancer Home.

The defendant also employed advertisements in the form of testimonials from patients.

C in substance admitted upon the trial of the proceeding to enjoin his practices that he had not obtained a license to practice medicine and surgery, or any other branch

of the healing arts but he admitted the advertising referred to and that he had received pay for his services.

He contended that the treatment consisted of applying a compound of certain drugs known only to himself which if applied in time to a cancer would kill the cancer. He denied ever having claimed to engage in the practice of medicine as defined by the laws of the State, and asserted that the applications of the paste were made not to the human body but only to the cancer with the result that the cancer died, and was ejected from the body by its healing processes as a foreign substance. He claimed that the ingredients of his compound had no effect on normal tissue but would only destroy abnormal tissue and that the application of the remedy did not require the knowledge or services of a physician.

A certain medical student, T, had been employed to obtain information concerning C's practices and on the trial gave testimony of what he had brought to light. T consulted the defendant concerning a pigmented nevus or mole under his arm and had on the first visit been told by C that it was a cancer located in a very bad place but that it could be cured. A fee of \$50.00 was named of which \$3.00 was paid. C applied some paste to the mole and covered it with adhesive, and instructed T to return in two weeks. T removed the paste and some months later returned to the defendant who repeated the application and reduced his fee for the proposed course of treatment. It should be noted that defendant stated in his testimony that he was not certain whether T had cancer but that in any event the paste would do him no harm.

The paste obtained by T was taken to one W a chemist and bacteriologist. W testified upon the trial that he had analyzed the paste and found it to contain thirty two per cent water and fifty per cent chloride of zinc and starch. The chemist stated that the compound was similar to Canquoin's paste which was sometimes used as a caustic in the treatment of cancer.

A Dr H was called by the State and asked his opinion concerning the paste. He explained that the ingredient zinc chloride was a caustic which would destroy normal

*State v. Cooper, 78 Pac 2nd 884

as well as abnormal tissue, and that over a hundred years ago a Frenchman by the name of Canquoin had first used it for treating cancer. He said that the use of the ingredient by the medical profession for cancer was very limited due to the known dangers of the drug in that it causes extensive scarring, and may cause clots in the blood stream causing a pulmonary embolus.

He gave as his opinion that the preparation definitely could not be termed a "home remedy," and further gave the opinion that it was impossible to distinguish between various types of cancer and benign growths by superficial examination.

After hearing the evidence, the trial Court found that the compound was not a home remedy, that defendant's services were not gratuitous, that defendant had no license to practice medicine, and that his practice was unlawful. Judgment was entered allowing an injunction restraining C from engaging in the practices in question.

The defendant appealed from the judgment to the highest Court of the State, urging various grounds for a reversal, but the judgment was affirmed.

In dealing with defendant's contention that the decision appealed from had violated his constitutional rights the Court said in its opinion:

Defendant suggests that the prohibiting of the practice as conducted by him violates his inalienable rights and the Fourteenth Amendment to the Federal Constitution. No authorities are cited in support of the contention. The law does not prohibit the practice of medicine and surgery. It simply prescribes certain requirements with which defendant and others must comply in order to qualify for the practice. That the Legislature, speaking for the people, has power to prescribe reasonable restrictions and qualifications touching the practice of the healing arts in any of its

departments, without violating any constitutional rights, is clear. Such legislation constitutes a valid exercise of police power.

In passing upon defendant's argument that he could not be enjoined from his practices even though he might have actually committed a technical violation of law, the Court said:

Defendant urges the state has a remedy at law under its criminal statute, and hence it will not be permitted to resort to the equitable remedy of injunction. It is true that ordinarily equity does not enjoin the commission of a crime. The Legislature, however, in order to more adequately protect the health and welfare of its citizens, saw fit to make effective the regulation and control of the practice of medicine and surgery by enlarging existing remedies. It therefore provided the preventive measures of injunction and quo warranto. It expressly declared these remedies should constitute additional remedies to the existing remedy of criminal prosecution and that they were not provided in lieu thereof. No valid reason is advanced and no authorities are cited holding the Legislature is without power or authority to provide such additional remedies.

This Court has recognized the fact there is a wide difference of views as to the use of injunction where the violation of law is made a criminal offense and where no express authorization by injunction is provided. It seems clear, however, that a statute which expressly makes available to the state the remedy of injunction for the protection of the public health is not invalid on constitutional grounds merely because the violator of a statute is also amenable to criminal prosecution. Such a statute is not invalid as authorizing an injunction against an act made criminal or as denying the right to a jury trial in criminal prosecutions. Punishment for violation of such injunction would be for contempt of the order of injunction and not punishment for violation of a criminal statute. These principles have been clearly recognized in cases of injunction under medical practice acts and similar legislation.

TO LURE NO MORE

The first seizure made under the new Federal food, drug and cosmetic act was that of an eyelash dye—"Lash Lure, the New and Improved Eyebrow and Lash Dye"—manufactured by the Cosmetic Manufacturing Company, Los Angeles.

This seizure was ordered, on the recommendation of the Food and Drug Administration, by the Federal District Attorney at Milwaukee, under the now effective cosmetic provisions of the act. The government alleges that this product is adulterated, in that it contains a poisonous or deleterious

substance, paraphenylenediamine, which may make it injurious to users.

Officials of the Department of Agriculture say that numerous instances are on record of serious eye injury, including some cases of total blindness, to women who have used this dye. The manufacturer, officials say, apparently sought to protect itself against damage suits by enclosing in each package slips to be signed by the customers absolving the beauty shop, distributor, and manufacturer from any blame if the use of "Lash Lure" results in injury.

Across the Desk

You Can't Mechanize it, Gentlemen

HE HAD ALMOST CONTINUOUS headaches for the past ten years. Hardly a day was free from pain, due to sinus trouble but he brushed it aside as if it were nothing and put all his energies, day and night, into curing the pains of other people little folks boys girls babies. That is why there is a sense of loss just now in the large area ranging from Ulster County in New York State to the lower borders of Sussex County in New Jersey and the farther reaches of Pike County in Pennsylvania, a region as large as some of the principalities of the Old World, for such was his kingdom. As Kipling wrote when Theodore Roosevelt died, "The world is no safer, now Greatheart is gone." Many a mother today in these border counties of the three neighboring states feels that her little flock is no safer now that this greathearted physician has departed.

The Unquenchable Fire

The fine old custom by which a promising boy is guided into the medical field by a kindly, wise family doctor brought marvelous results here. It is a custom that is working quietly and efficiently all the time, and accounts in some degree for the high quality of the American men of medicine. In this case it brought into the medical ranks one of those devoted men who fling themselves into the war on disease and death with all the abandon of the soldier going over the top to charge the enemy's guns. And this doctor is mentioned here, not because he was exceptional, but because he was not exceptional.

You find these men everywhere, and the lesson they drive home is that you can't regiment such men, you can't mechanize this flaming devotion. Many a man reading this page has in him that unquenchable fire.

While all the rest of the world is seeking shorter hours, less work, and more pay, these men give no regard to day or night, and treat all who come, pay or no pay. No wonder they revolt at schemes to

chain their talents to the bandwagon of politics and bend their freedom to the bidding of bureaucrats.

People who work with one eye on the clock can't understand it. To them the doctors seem unreasonable. Why not be a cog in a machine? Why not take orders from some political Tom, Dick, or Harry? Not while human life and health are at stake! Never! That is the answer. Medicine and mechanization do not mix.

Life is More than Chemical Reactions

This devoted upstate physician, about five years ago had to have a serious surgical operation which brought him to the verge of death, and it was in that dark hour that the delicate and inspiring relationship between doctor and patient was revealed at its best. No sooner was the news of his critical condition told in a paragraph in the local papers than the postman was loaded with messages of sympathy and good wishes.

He came through his crisis and his plan was to plunge again into his work, but his physician ordered him to Atlantic City to recuperate one of the few respites he ever had from professional care and responsibility.

And how did he rest? While others were lounging in deck chairs on hotel porches or rolling along the boardwalk in wheeled chairs he was writing hundreds of letters to his little patients who had sent him loving messages when he was in the valley of the shadow. And each letter was personal, for to him his patients were people, not 'cases,' and he remembered them all.

Who can say how much of his success in healing them was perhaps helped by this golden thread of fine personal sympathy that linked him to every little heart in his circle of patients? With all our magnificent scientific advance we are not forgetting that life is something more than a series of chemical reactions and the personal touch counts. Try to regiment it, and it is lost.

He Died that They Might Live

He died the other day at the age of fifty-five, of coronary occlusion, and one may say that more thought for his own health would have meant longer usefulness. His relatives often warned him that he was sacrificing himself, and sometimes the father and mother of a suffering child would urge him to rest, but, as we are told in a local paper, "he always refused with a smile and a shrug, and maintained the routine which, however it may have sapped his strength, made him practically indispensable to practitioners in half a dozen counties of New York and New Jersey." This newspaper, the *Middletown Times Herald*, says further

He literally lived in and for his profession, and his services, like the services of many other medical men, included a vast amount of work without consideration of fee, not only in Middletown but in the other communities of the large area in which he practiced.

The business side of the practice received from him personally nothing but neglect. A man who knew him well said yesterday that if it had not been for a capable, tactful and alert office assistant he probably would never have collected a fee except those that were volunteered.

At Horton hospital he devoted from three to four hours every morning to babies and small children, regardless of financial circumstances of their parents. Then he went home for his afternoon office hours, during which he often examined or treated a score or more children. After that he frequently spent half the night at the hospital, or in some dwelling, at the bedside of a child desperately ill.

On one occasion not long ago, when as a last resort he tried a new form of medication on a child whom consultants believed to be past relief, he remained at the bedside until nearly midnight, watching effects. He then went home to rest, but finding rest impossible returned at two in the morning to remain until it was time for his first hospital calls.

Nothing mattered but the children under his

care, and their faith in him was sublime. Often he administered to them when he himself needed rest and attention, for during the last seven or eight years there was scarcely a day in which he enjoyed complete freedom from pain.

The Land is Dotted with Such Men

The name of this devoted physician was Arch B. Chappell. It was a household word all through his part of the country, and he stood in high regard in the profession. In 1924 he was president of his county medical society. He was head of the Department of Pediatrics at Horton Memorial Hospital and was consultant at half a dozen more.

His devotion to his work is nothing unique or singular in the medical profession. The country is dotted with such men, and we might go further and say that the fighter in the war on disease succeeds in proportion as he has this quality. The point here is that in the changes that may come in our national life, nothing must be done to hamper or mar this priceless spirit in our medical practice. No one can deny that strange winds are blowing through the world. Other peoples, older and more settled than ours, have been revolutionized, and their professions subjected to central political control. Meddlers are trying to thrust themselves in between doctor and patient. The months before us will see determined efforts of this kind in Washington and in many state capitals, disguised as efforts to help the sick. These mischief-makers should be told that the best friend of the sick, and the one best able to help them, is the family doctor, and any attempt to subject him to the control of political machinery will only dampen that flaming spirit that has battled with death at ten thousand bedsides, and won the victory.

You can't mechanize it, gentlemen!

"BLOW, BUGLE, BLOW"—A BIT LOWER

Standard Brands, Inc., New York, has entered into a stipulation with the Federal Trade Commission to discontinue certain misleading representations in connection with the sale of Fleischmann's Compressed Yeast.

The company agrees to stop representing that its yeast will cure or prevent constipa-

tion, bad breath, boils, acne, pimples or other manifestations of irregular digestion, and that it will "clear" skin irritants out of the blood, unless limited to such skin irritants as competent scientific tests prove can be removed from the blood by using the product.—*Better Business Bulletin*, August 4, 1938

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

Primary Carcinoma of the Lung By Edwin J. Simons M.D. Octavo of 263 pages illustrated. Chicago, The Year Book Publishers, Inc., 1937 Cloth, \$5.00

This work is the most complete accurate and carefully written study on primary carcinoma of the lung that has appeared. The author presents an historical development of the study of tumors of the lung which brings the subject to the present time. The presence of this condition in various countries is shown. The theories of the etiology are given with the final deduction that this condition follows chronic pulmonary irritation. The pathology is reviewed, the clinical aspects are carefully presented and the methods of diagnosis are discussed. The section on treatment is given from all points of view, symptomatic, radiotherapeutic, bronchoscopic and surgical. The volume ends with a summary of this careful compilation. The bibliography is the most comprehensive that has yet been published. This book is indispensable to anyone who may be interested in this condition and all should be interested.

HENRY M. MOSES

Demonstrations of Physical Signs in Clinical Surgery By Hamilton Bailey, F.R.C.S. Sixth edition. Octavo of 284 pages, illustrated. Baltimore, William Wood & Company, 1937 Cloth \$6.50

This is primarily a textbook for medical students and surgical aspirants. Six editions have appeared in the past ten years the present one being fully revised and containing many new illustrations. By the use of bold faced and italic type the author has well emphasized the points in various examinations which have everyday value, and has also wisely submerged in small type many of the so-called classical signs which are of little practical use.

The profuse and clear illustrations make the 268 pages of concise well written description easy to read and give excellent aid to the memory. The author's occasional brief sallies away from his subject into the field of treatment are probably intentional and add to the student's interest. When the subjects of postoperative gastric dilatation, peritonitis and ileus were reached the reviewer hoped for personal enlightenment but as usual found physical diagnosis rather helpless in this difficult morass. It is hoped that the next edition may elucidate

further the diagnosis of the increasing field of intrathoracic surgical conditions. The book is well indexed.

WILLIAM H. FIELD

Methods of Treatment. By Logan Clendenen M.D. Sixth edition. Octavo of 879 pages illustrated. St. Louis, The C. V. Mosby Company 1937 Cloth, \$10.00

This is the sixth edition of Clendenen's deservedly popular textbook on methods of treatment in internal medicine. Ten collaborators have contributed authoritative chapters, but the book as a whole carries the imprint of Clendenen's personality. It will serve as a useful guide to all except advanced workers in special fields. In addition to a long and complete section on drugs there are chapters on psychotherapy, massage exercise, hydrotherapy and other less well known methods in internal medicine.

We do not hesitate to recommend this textbook highly. Few readers will need to be reminded that the book is written in Clendenen's usual fluent and literate style.

MILTON PLOTZ

A Pediatrician in Search of Mental Hygiene. By Bronson Crothers M.D. Octavo of 271 pages. New York, The Commonwealth Fund, 1937 Cloth, \$2.00

The aim of this book is to present for the consideration of the pediatrician the need for meeting the problem of mental hygiene in some way. The text is divided into three portions. In the first part, there is brought out the relationship of pediatrics to other services such as psychiatry, social psychiatric work, psychology, the school and other parts of the community such as the juvenile courts. Either the pediatrician must have training in these fields if he is to do the whole job himself, or he must delegate authority over the child to these agencies. In the latter case, he would have to cooperate with the people involved in these activities and not assume to be director of the child in all sorts of difficulties.

In the second part of the book there is outlined a method for utilizing mental hygiene in the teaching of medicine. It is suggested that cases referred to hospitals for child guidance should be under the care of the pediatrician, the psychiatrist and the social worker.

In the last portion of the book the author

presents a teaching experiment in action describing the unit as it is organized in the Children's Hospital in Boston

In concluding the author suggests that changes which are to be made in the teaching of pediatrics should only be carried out where they will improve the type of pediatric practice. These opportunities lie in the improvement of the physical care of children from a preventive point of view and a greater utilization of the data on physical growth and development. Further, material collected by psychologists relative to mental development should be added. This implies a relationship with this group and education in general. Finally, an attempt should be made to select and develop those techniques of psychiatry which can be utilized for children. These psychiatric techniques should first be applied to the ordinary physical problems. Subsequently they should be directed toward the solution of behavior problems in physically sound children. This book is recommended to the profession for careful study. The author always has ideas that are both stimulating and provocative.

STANLEY S LAMM

The Physiology of the Kidney By Homer W Smith, A.B. Octavo of 310 pages, illustrated. New York, Oxford University Press, 1937. Cloth, \$4.50

This is a comprehensive monograph on the function of the kidney, principally concerned with the activity of this organ as a regulator of the internal environment of the individual. Comparatively little space is given to discussion of the various theories of kidney function, but the main emphasis is placed on actual experimental evidence of what the kidney can do. This Monograph presents the subject matter in a lucid style, and should be of interest to all those who have to deal either with the normal or pathological kidney.

G B RAY

Physical Therapy in Arthritis By Frank H Krusen, M.D. Duodecimo of 180 pages, illustrated. New York, Paul B Hoeber, Inc., 1937. Cloth, \$2.25

Here in a small volume and few words the author has condensed a fund of information on the treatment of arthritis. As would be expected in consideration of an ailment often so chronic, much detail is given concerning home treatment. Hydro-

therapy, mechanical devices and regimen are dealt with thoroughly. Various electrical devices are described, and in some instances directions for their construction are given. Certain of the treatments advocated and the results claimed for them may not be fully in accord with the findings of some investigations. But all are quoted on good authority, and must be included to bring the book to the excellent standard it has attained. The book is well written, clearly printed and illustrated, and should be included in the library of all practitioners who would treat the arthritic patient.

JEROME WEISS

Not So Long Ago A Chronicle of Medicine and Doctors in Colonial Philadelphia. By Cecil K. Drinker, M.D. Octavo of 183 pages, illustrated. New York, Oxford University Press, 1937. Cloth, \$3.50

This book comprises excerpts from a diary kept by Mrs. Elizabeth Sandwich Drinker, a great, great grandmother of the author, interspersed with interesting and helpful comments by the author himself. The diary covers a period of fifty years, 1758 to 1807, and concerns itself principally with the efforts of the Drinker family, which was quite large, to protect itself from the scourges of the many diseases common to colonial Philadelphia. The family was in very comfortable circumstances and hence was able to afford the best medical attention of the period. Nevertheless, in view of the meagre medical knowledge of those times, members of the Drinker family were afflicted with yellow fever and malaria during the epidemics which swept the city. An accurate conception of what the most advanced medicine of that period had to offer is obtained when the courses of treatment pursued during epidemics of malaria and yellow fever—bleeding, purging, emesis and diaphoresis—are stressed. A number of minor ailments were treated at home by some of the older members of the family, who used old home remedies. The medical teachers of the period gave their students few facts but many theories and dogmas. However, the colonial physician showed devotion to his patients by standing at his post during those devastating epidemics.

This book furnishes an excellent description of the status of medical knowledge during colonial times.

WILLIAM RACHLIN

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LEAD POISONING

Newer Concepts In Treatment

IRVING GRAY, M D., F.A.C.P. and IRVING GREENFIELD, M D., *Brooklyn*

During the past five years we have had the opportunity of studying the clinical laboratory, and metabolic aspects of lead poisoning as a result of occupational exposure. In separate communications the findings on physical examination¹ and laboratory investigations² were reported. The metabolism of lead during deleading and the complications that may follow such a form of therapy and also the effect of a high calcium regime on the metabolism of lead is the purpose of this presentation.

Deleading

In 1926 Aub Fairhall Minot, and Reznikoff³ published their observations following an exhaustive investigation of lead metabolism. They found that the solubility of lead phosphate paralleled that of calcium phosphate and that the excretion of lead could be effected by distorting calcium metabolism. A negative calcium balance increased the rate of lead excretion while a positive calcium balance favored the storage of lead. In 1928, Haldane⁴ reported that marked acidosis in man could be produced by the administration of large doses of ammonium chloride. Following this observation Aub and his coworkers⁵ noted the effect of ammonium chloride on the excretion of lead in animals. They observed that the animals receiving ammonium chloride excreted twice as much lead as did the controls. Observations on the effect of phosphoric and

hydrochloric acid showed that when these acids were administered and coupled with a low calcium diet, the excretion of lead was increased.

Dangers of Deleading

In a previous communication⁶ one of us stressed the importance of hospitalization during the process of deleading. The dangers associated with an increased lead stream were emphasized. Legge⁷ maintained that active deleading therapy should not be attempted during the acute phase of lead intoxication. Kehoe and his co-workers⁸ have called attention to the danger of deleading rapidly because of the possible storage of this lead in the central nervous system.

The conversion of lead stored innocuously in the skeletal tissues into free lead may produce serious damage to the nervous system. When there is involvement of the periaxial sheath of the peripheral nervous system, the effects of the lead may only be temporary. However, not infrequently the damage to the nervous system may be serious and the changes produced irreversible and permanent.

The following two cases illustrate the dangers of deleading in acute lead poisoning.

CASE 1 A thirty-nine year old white male, admitted to hospital February 4 1938

*Read at the Annual Meeting of the Medical Society of the State of New York
New York City May 11 1938*

and discharged February 20, had been employed for the past two years "to burn paint from the rims and spokes of wheels" In November 1936, he had an acute toxic lead episode consisting of colic, weakness, constipation, headache, and loss of strength and weight He was removed from his occupational hazard by his family physician, who instituted deleading therapy in the form of low calcium diet plus the administration of large doses of ammonium chloride After this treatment had been continued for three months, the patient noted a tremor of the head, a progressively increasing inability to grasp objects with his hands and also a progressive inability to raise his hands above the wrists When he was admitted to the hospital, fifteen months after the onset of his illness the pertinent findings on physical examination were the bilateral wrist and finger drop and poor oral hygiene There was no lead line on the gums Blood pressure was 120/76

Laboratory data on admission Blood count, R.B.C., 3,650,000, hb seventy-eight per cent, W.B.C. 5,700, polys sixty-eight per cent, lymphs twenty-eight per cent, monos two per cent, eos two per cent. Platelets 180,000, stippling three cells, fifty H.P.F. *Urine* Chemically negative. *Blood chemistry* Sugar eighty-eight Mg in 100 c.c. of serum, urea 23.2 Mg in 100 c.c. of serum, CO₂ combining power 63.8 volumes per cent. *Blood lead* 0.05 Mg of lead in 100 c.c. of whole blood *Urine lead* 0.98 Mg of lead in 1,950 c.c. of urine

After a preliminary period of control study, on February 9 (five days after hospital admission), he was placed on optimal calcium, high phosphorous, high vitamin diet with a daily total caloric value of 2,600 In addition to this, he was given sodium phosphate, two drams t.i.d. After eight days, lead determinations were done with the following results *Blood lead* 0.03 Mg of lead per 100 Gm. of whole blood, *Urine lead* 0.05 Mg of lead per 1,900 c.c. of urine.

CASE 2 A forty-six year old white male, admitted to hospital July 16, 1937, and discharged July 27, had been employed as a painter for thirty years Five years before admission he had an episode of acute lead intoxication with abdominal cramps, nausea, vomiting, headache, dizziness, and constipation He was removed from his occupational hazard and active deleading therapy was instituted in the form of low calcium diet, ammonium chloride, and potassium iodide. After this form of therapy had been continued for several months the patient began to complain of weakness of the right arm and both legs On admission to the hospital he had diminished grip in both

hands and bilateral wrist and finger drop Oral hygiene was poor There was no lead line on the gums Blood pressure was 126/70

Laboratory data Blood count R.B.C. 4,150,000, hb ninety per cent, W.B.C. 6,850, polys sixty-five per cent, lymphs thirty-three per cent, eos, two per cent, stippling three cells, fifty H.P.F. *Urine* Chemically negative *Blood lead* 0.04 Mg of lead per 100 Gm. of whole blood *Urine lead* 0.14 Mg of lead in 1,955 c.c. of urine

He was placed on an optimal calcium, high phosphorous, high vitamin diet with a total daily caloric value of 2,600 In addition to this he was given sodium phosphate, two drams t.i.d. Lead determinations within seven days after the high phosphate regime revealed the following *Blood lead* 0.04 Mg of lead in 100 Gm. of whole blood, *Urine lead* 0.02 Mg of lead in 2,010 c.c. of urine

The above cases are illustrative of the dangers and complications that may follow active deleading therapy during the acute toxic lead episode

Effects of High Calcium Therapy on Lead Metabolism

The behavior of lead in solutions containing phosphates is analogous in many respects to that of calcium Aub, Robb, and Rossmel⁸ have shown that when lead is removed from solution in the body it is stored in the bones, in higher concentration in the trabeculae than in the cortex of the bone They pointed out that the factors which promote calcium deposition also favor the deposition of lead Shelling⁹ has stated that "the optimal conditions for calcification are (1) an adequate intake of calcium and phosphorous, (2) an optimal ratio between the two elements, and (3) an adequate supply of vitamin D When the intake of vitamin D is insufficient and the calcium and phosphorous ratio is disturbed in either direction, calcification is hindered" McCollum and his coworkers¹⁰ have shown in their experimental work on rats that if the calcium greatly exceeds the phosphorous, rickets results Apparently the excessive intake of calcium over phosphorous results in an increased excretion of the former through the intestines as an insoluble phosphate Thus the body is deprived of lime salts which are necessary for calcification On the other hand if the

phosphorous greatly exceeds the calcium intake the excretion of the excess of phosphorous in the feces as an insoluble calcium salt leads to either rickets or osteoporosis. If the diet is deficient in calcium but adequate or high in phosphorous, osteoporosis develops.

Aub and associates,⁸ concerning themselves only with the low calcium type of diet, found that their experimental animals developed osteoporosis. This could be prevented by adding calcium salts to the low calcium ration. They interpreted these results to mean that the addition of calcium salts to diets in general results in superior calcification. This is the basis of the high calcium therapy advocated by Aub and associates.⁸ As previously mentioned, Shelling⁹ called attention to the disturbances in calcification which occur when the calcium is in excess of the phosphorous so that the addition of calcium salts other than the phosphate will also hinder the deposition of lead. Furthermore, in order to deposit lead in the skeleton as an insoluble lead phosphate, a certain amount of phosphate is required and hence, when the phosphate is inadequate, free lead may remain in circulation. The fallacy of using high calcium diets in the treatment of lead poisoning has been tested experimentally in rats. Shelling¹¹ in his experimental work, found that the addition of calcium to a stock diet containing lead carbonate was more toxic to the animals than when no calcium had been added and that sodium phosphate protected the animals against the ill effects of the lead. This form of therapy according to Shelling "provides sufficient phosphate for the deposition of both calcium and lead phosphate in the skeleton, for the excretion of lead as the relatively nontoxic lead phosphate and also for the formation of a colloidal lead phosphate in the blood." Bischoff and his co-workers¹² found that the toxicity of colloidal lead phosphate or of lead rendered colloidal when shaken with serum containing inorganic phosphorous is much less toxic than ionic lead. Aub and his associates⁸ noted that the phosphate in serum protects the red cells from the action of lead. Evidently the maintenance of an adequate phosphatemia is an important factor in the protection against lead intoxication.

The hospital records of four patients were selected to demonstrate the effect of a high calcium, low phosphorous regime on the metabolism of lead. After control studies of the twenty four hour urine and whole blood for lead were obtained, the high calcium low phosphorous regime was instituted.

The twenty-four hour specimen of urine and the whole blood was collected in pyrex containers and every precaution was taken to avoid contamination. The diets were properly prepared in the metabolic diet kitchen and brought to the patient directly by special messenger.*

High calcium therapy was administered in the form of a high calcium diet (Diet I), calcium lactate by mouth (gr XXX q 4 h) and calcium gluconate (10 c.c.) intramuscularly daily. After five days of such therapy, urine and blood samples were again collected. During this period of high calcium therapy, the diet was low in phosphorous.

In order to determine the effect of a low calcium, high phosphorous diet (Diet II) and the creation of acidosis on lead metabolism these same four patients were placed on this form of therapy following the high calcium regime. Fifteen grains of ammonium chloride were given every hour for ten doses. One-half ounce of sodium phosphate was administered every morning. After five or six days of such procedure, the whole blood and twenty-four hour specimen of urine was obtained to determine the lead content. The dithizone method was employed in determining the lead content in biological materials.

Case Reports

CASE 3 A fifty five year old white male, admitted to hospital December 10, 1936 and discharged December 30 had been employed as a painter for twenty years. One month prior to admission he had an acute toxic lead episode characterized by epigastric pain, colic, and constipation. The pertinent findings on physical examination were poor oral hygiene, lead line present on both upper and lower gum margins, abdominal tenderness along the course of the descending colon and cardiac hypertrophy. Blood pressure was 168/80. *Laboratory data on admission*

*Diet charts prepared by Miss Emma Baughman Dietitian, Brooklyn Jewish Hospital

DIET I—HIGH CALCIUM—LOW PHOSPHOROUS

	Weight Gm	Pro- tein Gm	Calo- ries	Cal cium	Phos phorus
Orange juice	400	2 4	220	07400	05200
Egg whites (4)	136	16 7	69 2	01960	02040
Butter	10	1	76 9	00160	00170
Whole wheat bread	30	2 9	74 7	01500	04590
Cream	350	7 7	1334 0	30100	26450
Maple syrup	60	—	151 6	06420	00780
Lemon juice	100	—	39 0	03300	01000
Grapefruit juice	100	4	42 0	02700	02000
String beans	100	2 3	42 0	05500	05100
Cauliflower	150	3 1	46 5	18300	09000
Dates	60	1 2	208 2	04000	03200
Long clams	100	8 6	51 0	12300	10500
Canned figs	50	2 1	185 0	08050	05800
Lettuce	30	3	4 9	08600	06700
Broccoli	100	3 3	37 0	14000	06800
Celery hearts	50	6	10	03900	02400
Carrots	100	1 1	45	04600	04100
Olives (plain green)	60	7	7 6	07000	00800
Blueberries	100	6	68	00025	00020
	54 1	2712 6	1 39815	96650	

Blood count—hb fifty-six per cent, R B C 3,148,000, W B C 9,100, polys seventy per cent, lymphs twenty-eight per cent, eos one per cent, monos one per cent, stippling five cells, fifty H P F *Urine* Chemically negative *Blood chemistry* Sugar ninety Mg in 100 c c of serum, *Urea* 35.1 Mg in 100 c c of serum Effect of high calcium therapy may be observed in Table I

CASE 4 A forty-four year old white male, admitted November 4, 1936 to hospital and discharged November 20, had used an acetylene torch to remove paint from ships for the past twenty-five years Two months prior to admission, he had an acute toxic episode characterized by epigastric pain, colic, constipation, nausea, and increasing loss of weight The pertinent findings

DIET II—LOW CALCIUM—HIGH PHOSPHOROUS

	Weight Gm	Protein Gm	Calo- ries	Cal cium	Phos phorous
Bread	140	13 580	348 6	0700	2152
Bacon (3 slices)	15	1 570	93 7	0015	0144
Fresh lima beans	30	6	98 4	0224	1064
Lamb	150	28 800	387 5	0165	3105
Butter	30	300	230 7	0048	0051
Cocoa	5	1 080	24 8	0056	0354
Corn	100	3 400	103 0	006	1030
Cream (10%)	60	1 320	228 6	0516	0402
Egg yolk (3)	60	9 420	217 8	078	3552
Haddock	100	17 200	72 0	019	1970
Mushrooms	60			0084	0588
Peanuts	18	4 640	98 64	0120	0711
Peas—Green	100	7	100	0220	1270
Potato	240	5 280	199 2	0288	1272
Rice	15	1 180	52 6	0016	0148
Sliced tomato	90	1 080	18 9	009	0261
Tomato juice	90	900	21 6	0054	0135
Shredded wheat.	27	3 200	98 55	011	08948
Prunes—Dry	60	1 260	181 2	0348	05100
Pineapple	90	360	51 30	0072	00990
Grapes	90	1 26	70 2	0171	0315
	108 890	2647 29	4337 2	02040	

on physical examination were marked pallor, poor oral hygiene, and lead line on the gums Blood pressure was 108/82 *Laboratory data on admission* hb seventy-eight per cent, R B C 3,790,000, W B C 8,900, polys seventy per cent, lymphs twenty-five per cent, monos five per cent, platelets 210,000, stipplings six cells fifty H P F, *Blood sugar* 80 Mg per cent, *Urea nitrogen* 16.8 Mg per cent. The effect of high calcium therapy may be observed in Table II

CASE 5 A forty year old male, admitted December 26, 1936 to hospital and discharged January 12, 1937, had been employed as a stereotype worker for the past twenty years Two months prior to admission, he began to complain of weakness, dizziness, constipation, numbness and tingling of both hands and feet The findings on physical examination were essentially negative The oral hygiene was fairly good. No lead line on the gums Blood pressure was 120/80 *Laboratory data on admission* hb eighty-five per cent, R B C 4,540,000, W B C 8,400, polys fifty-five per cent, lymphs forty-two per cent, eos two per cent, monos one per cent, Platelets 290,000, stippling three to four cells, fifty H P F *Urine* negative, *Blood sugar* 102 Mg in 100 c c. of serum The effect of high calcium therapy may be observed in Table III

CASE 6 A fifty-three year old white male, admitted January 6, 1937 to hospital and discharged February 16, had been employed as a painter for the past forty years Two weeks prior to admission, he began to complain of colic, diarrhea, loss of appetite, headache, and tingling of both hands and feet The findings on physical examination were essentially negative The mouth was edentulous Blood pressure was 104/70 *Laboratory data on admission* hb ninety per cent, R B C 4,700,000, W B C 9,360, polys fifty-six per cent, lymphs forty-one per cent, eos two per cent, monos one per cent, Platelets 140,000, stippling five cells, fifty H P F *Urine* Negative The effect of high calcium therapy may be observed in Table IV

From a perusal of the four accompanying tables it is evident that the mobilization and excretion of lead is definitely increased with a high calcium regime especially when the phosphorous intake is low To these same four patients a low calcium diet and large doses of ammonium chloride were given for the production of acidosis This type of therapy, as recommended by Aub⁹ for the purpose of de-leading, failed to cause any increase in

lead excretion except as noted in Case 3 (Table I). The increase in the lead content of the blood in this case was not paralleled by an increase in the lead content of the urine. It is possible that all of the lead which could be mobilized was liberated under the high calcium regime and that the subsequent production of acidosis with a low calcium diet failed to cause any further change in the lead metabolism.

Comment

In a previous communication² the find-

ings of Aub and his coworkers⁴ were confirmed. It was shown that by the production of acidosis and the use of a diet low in calcium, deleading could be produced.

The dangers of an active lead stream and the serious neurological complications that might follow deleading during the acute toxic lead episode have been portrayed in cases 1 and 2. From our studies it is evident that the continuation of a high calcium regime liberates more lead from the tissue depots than that which follows acidosis and a low calcium diet.

The importance of phosphorous in the

TABLE I—CASE III

Date	Diet	Medication	Mg. Lead			
			Calcium Mg. %	Phosph Mg. %	Blood 100 Gm.	Urine 1 Liter
December 10, 1936		Control study	9.6	3.9	0.13	0.16
December 11	High Calcium	Calcium Gluconate 10 cc. intram. qd				
	Low Phosphorous	Calcium Lactate Gr xxx q4h.				
December 14			10.1	3.7	0.19	0.26
December 21	House	None				
December 23	Low Calcium	Ammonium Chloride Gr xv q1h x10qd				
December 27	High Phosphorous	Sodium Phosphate ½ oz. q.a.m.	9.7	3.4	0.11	0.06

TABLE II—CASE IV

Date	Diet	Medication	Mg. Lead			
			Calcium Mg. %	Phosph Mg. %	Blood 100 Gm.	Urine 1 Liter
November 5 1936		Control study	9.4	3.7	0.06	0.09
November 8	High Calcium	Calcium Gluconate 10 cc. intram. qd				
	Low Phosphorous	Calcium Lactate Gr xxx q4h				
November 14					0.01	0.19
November 15	House	None				
November 17	Low Calcium	Ammonium Chloride Gr xv q1h x10 qd				
November 23	High Phosphorous	Sodium Phosphate ½ oz. q.a.m.	8.5	3.7	0.03	0.09

TABLE III—CASE V

Date	Diet	Medication	Mg. Lead			
			Calcium Mg. %	Phosph Mg. %	Blood 100 Gm.	Urine 1 Liter
December 28, 1936		Control study	9.3	3.9	0.02	0.11
December 30	High Calcium	Calcium Gluconate 10 cc. intram. qd				
	Low Phosphorous	Calcium Lactate Gr xxx q4h				
January 4 1937			9.8	3.1	0.05	0.19
January 4	House	None				
January 6	Low Calcium	Ammonium Chloride Gr xv q1h x 10qd				
January 11	High Phosphorous	Sodium Phosphate ½ oz. q.a.m.	10.4	3.6	0.07	0.07

TABLE IV—CASE VI

Date	Diet	Medication	Mg. Lead			
			Calcium Mg. %	Phosph Mg. %	Blood 100 Gm.	Urine 1 Liter
January 8, 1937		Control study			0.07	0.07
January 10	High Calcium	Calcium Gluconate 10 cc. intram. qd				
	Low Phosphorous	Calcium Lactate Gr xxx q4h				
January 14			9.8	3.9	0.12	0.14
January 17	House	None				
January 19	Low Calcium	Ammonium Chloride Gr xv q1h x 10 qd				
January 22	High Phosphorous	Sodium Phosphate ½ oz. q.a.m.			0.07	0.07

REORIENTATION IN THE PUBLIC HEALTH AND HOSPITAL ORGANIZATION PATTERNS OF OUR COMMUNAL LIFE

E H L CORWIN, PH D, *New York City*

Executive Secretary, Committee on Public Health Relations of The New York Academy of Medicine

These are days of bewilderment and of rapid drifting. On many occasions they seem to be rudderless to many of us. We hear, however, a great deal about planned economy, and about our rapidly approaching a planned age, and a planned social order, which some of us, for good reasons, contemplate with apprehension and doubt. We have heard much about the five year plan, and the ten year plan, and the four year plan, in the various totalitarian states, and how, in spite of all the power of the governments concerned and the annihilation of individual initiative, all these plans have miscarried. *Planning is most desirable as a mental discipline, catastrophic when it becomes a fetish.*

Modern life proceeds at too rapid a pace to make possible accurate long range forecasts, planning, nevertheless, in the sense in which it is used in chess playing, or in the sense in which it is used in planning for one's career, or in the sense in which it is used for the laying out of a city, or of a transportation system, is indispensable to rational existence and development. Rational planning does not preclude deviations from the outlined course or the making of adjustments to new and unforeseen conditions. In other words, I would like to draw a distinction between planning in the sense of making a forecast of future trends and adjusting the course of action accordingly, and planning in the sense that it is used in totalitarian states and is advanced by some people in this country whereby the mold is cast beforehand and efforts made to cramp all manifestations of exuberant life into this cast. I think it is important to bear in mind the difference between the reasonable concept of planning for the future and the doctrin-

aire delusion that life can be cramped into a planned model.

The starting point for intelligent planning is accurate stock-taking of existing circumstances, whether it be on a chess board, in a family situation, in business or in society. I shall discuss some phases of the structure of our present community organization of services for the prevention of illness and the care of the sick, with a view of pointing out how certain phases of it might, or should be, modified to render a more adequate service in the future.

It seems to me we need to pause every once in a while, take cognizance of what is going on, notice the trends, check some and encourage others, in accordance with what you and I believe is the desirable goal to be attained. In other words, what we need are occasional soundings or explorations for purposes of orientation. I shall endeavor to submit to you briefly a few facts and a few rather crudely expressed opinions concerning affairs in the realm which interests us professionally, and to express to you for your consideration certain likewise rather crudely defined desiderata. The time of refinement of ideas comes only after the rough outlines have been agreed upon.

I

To begin with, *I submit that nowhere in this country is either preventive or curative medicine carried out with that degree of efficiency which science and skilled technics, on the one hand, and devotion and zeal, on the other, should ensure.*

It is the lack of funds in some instances, political interference in others, the clash of personalities, and misconceived antagonisms in still others, and the

Read at the Annual Dinner of the Chicago Heart Association, February 15, 1938

lack of a clear master key chart everywhere. *I further submit that all other things being equal, the further apart public health administration is kept from curative medicine, the better are their respective jobs done.* What are these respective jobs?

It is the job of the public health services, official and voluntary, to implement the tools of preventive medicine, immunology, biotherapy and sanitary science, to social ends. It is the job of the private physicians and of hospitals and allied institutions to place at the disposal of the community all the resources which modern science and inventive ingenuity have developed for the diagnosis and treatment of disease. Both preventive and curative medicine tend to secure for all members of society such quality and duration of life as the inherited physical traits of each individual and his personal conduct permit. The public health movement endeavors to achieve this by prevention of disease, by the sanitation of the living and working environment, by the control of foci of infection, by mass education in the principles of personal hygiene, by providing free laboratory services for the diagnosis of communicable diseases, and by supplying immunizing and biotherapeutic agents. All these are proper public health functions. On the other hand the treatment of the sick and of the disabled whether they be sick from communicable diseases, from deficiency diseases, from chronic diseases or from whatever be the cause, is the responsibility of curative medicine. Social ends in curative medicine are served best when they are left as the responsibility of the medical profession and of those agencies in the community which assume the responsibility for the maintenance of hospitals, sanatoria, convalescent homes and allied institutions.

I further submit that the time for independent dispensaries or detached clinics is past. Whether it be a tuberculosis clinic or an eye clinic or a heart clinic, or a prenatal clinic, or a syphilis or gonorrhea clinic, it should not be maintained outside of a hospital. I need not emphasize that independent treatment clinics, unconnected with hospitals are contrary to sound medical and public policy.

In recent years it has become more and

more generally recognized that the smaller the population unit that is capable of supporting an efficient community health organization, the more responsive to the local needs and the more effective will be the character of the public health work of that community. In conformity with this fact public health administration is becoming decentralized. In large cities, local health centers are being organized to serve local districts. This has helped to establish an intimacy which never existed before between the health workers of the area and the population, and the former keep-off-premises attitude has been changed to that of hospitality. *I submit that this form of organization of health work is going to replace the stereotyped political health department,* and will carry with it a close association of preventive medicine with all the medical and social work resources of each particular district in the community.

At this point I would like to warn against a tendency which seems to be growing up with the establishment of health centers, that of maintaining in connection with them clinics for pregnant women, for babies, for venereal diseases for tuberculosis etc. It is a tendency which should be discouraged for, as I have stated before it is bad administrative and bad scientific policy to scramble together strictly public health functions with those which belong primarily to clinical medicine. It is also bad social or strategic policy, for it may result in the curtailment of budgetary appropriations for strictly public health work because of the heavy demands which the expansion of clinical activities must inevitably carry if they are to be done well. In other words, the appropriating authorities, not able to distinguish between preventive and curative medicine (or not interested or concerned in doing so), are likely to underestimate the requirements of preventive medicine when these are lumped together with the requirements for the treatment of disease, and when the sum total reaches an appreciable size.

I want to repeat, even at the risk of being redundant, that the two accounts—that of public health, *per se* and that of treatment of disease—should be kept entirely apart for intrinsic, as well as strategic reasons.

II

It is a common experience that the poorer the population of a given area, the higher must be its per capita burden for the maintenance of indispensable work in the prevention of disease and the care of the sick. It is those communities more than others that need financial assistance from either state or national government. *In this connection I submit that the distribution of federal grants-in-aid or subsidies or whatever you wish to call them should be based not on population, but on recognized needs and on the financial effort made by the various communities toward meeting their needs.* This, to my mind, is of cardinal importance, and should be recognized as a matter of common practice, particularly in view of the growing tendency to appropriate federal funds for various health and hospital purposes. I refer not only to the sums which are available under the Social Security Act, but to the funds which may in time become available to combat venereal diseases, tuberculosis, cancer, poliomyelitis, and, I hope, rheumatic fever and rheumatic heart disease.

Money seems to be a matter of slight consideration in this era. The principles of economics, which seemed to be so well entrenched the world over up to several years ago, are lying numb in the discard heap. In the light of modern developments, the guileless economic ideology of the past seems as ludicrous as it was inconvenient. It appears that it is not the one who saves most, but the one who spends most, that is the better citizen. It appears that by inordinate borrowing, prosperity can be conjured up.

Some economists point out that one of the reasons for the present economic recession is the fact that the proceeds from the Social Security taxes have come to about equal the costs of relief, thus diminishing the available purchasing power and interfering with the economic priming of the pump. If the federal financial policy of the past few years is to continue, and if to maintain our price structure enormous government expenditures are to be voted for various projects, as seems to be the case, a new age will have dawned and the world will never again be what it was. *I submit therefore that in view*

of that, those of us who are interested in the promotion of public health and in adequate hospitalization to meet our needs had better climb on the band wagon and present our needs in the same grandiose and debonair manner as other needs of our national economy have been pressed to the forefront. I notice that I am not the first to advocate this. You are no doubt familiar with the proposal introduced in the Congress by Senator LaFollette and Congressman Bulwinkle and which is endorsed by the American Social Hygiene Association, which provides for an appropriation of the truly staggering sum of \$271,000,000 to be expended in the next thirteen years on an ascending scale for the elimination of venereal diseases. It is proposed that \$3,000,000 be appropriated for the purpose for the fiscal year ending June 30, 1939, \$6,000,000 for the following year, \$12,000,000 for the third year, and \$25,000,000 for each of the next ten years. No one will question that the stamping out of syphilis will prove one of the greatest blessings, and that it will materially decrease the great contingents of sufferers from mental as well as heart diseases. Nevertheless, it seems to me that the sums called for are out of all proportion to the relative needs of other sections of the public health and hospital field. Everyone knows that the heart diseases have come to occupy the foremost place among the destructive forces of our physical existence, and that rheumatic fever must be regarded as one of the major plagues alongside of tuberculosis, poliomyelitis, and other great cripples and destroyers. *Because the public health authorities are at least thirty years behind the times in the morbidity classification of cardiovascular diseases, the public has no conception of the magnitude of the health problem which rheumatic fever presents today.*

Recently a study was made in Philadelphia on behalf of the National Institute of Health, and published in the *Public Health Reports* of the United States Public Health Service.¹ Here are a few of the findings. The mortality from rheumatic heart disease during 1936 in Philadelphia is estimated at from twenty-five to thirty per 100,000 population. As a cause of death from communicable diseases, rheumatic fever is ex-

ceeded only by tuberculosis, lobar pneumonia, and syphilis. Among the chronic communicable diseases, it occupies the third place. The study brought out anew the fact that over a course of years rheumatic heart disease resulted in considerably more deaths than whooping cough, meningococcus meningitis, typhoid and paratyphoid fevers, measles scarlet fever, diphtheria, and anterior poliomyelitis, which followed in the order listed. In persons under twenty-eight years of age, rheumatic fever was the cause of more deaths than pulmonary tuberculosis. The mean age at death from rheumatic heart disease in the Philadelphia study was 36.5 years. Such, in brief is the biosocial importance of this "*forgotten health problem*."

Shouldn't an effort be made, if large sums of money are to be available for useful social ends, to build a chain of sanatoria for rheumatic fever and rheumatic heart disease patients in the warmer sections of our country for the benefit of sufferers from these diseases and for research purposes? Is it not a function of this and other similar associations as well as of the national health hospital and medical organizations to get behind a program of this character? *I submit that a 'Warm Springs' foundation for rheumatic fever is on par with foundations for poliomyelitis.*

You are no doubt, familiar with the observation that in the subtropical areas the progress of rheumatic heart disease is more easily checked than in the colder climates.

You probably know of the experiments made with two groups of New York City children who were suffering from an acute form of this condition: one of whom was taken to Puerto Rico and the other to Florida. During the first three months of their stay in the subtropical areas the activity of the rheumatic process subsided and during the next three months it disappeared. Shortly after the return of the children to New York in the summer months to avoid the bad influence of the cold season the symptoms began to appear again. There was evidently more than the mere exposure to sunlight that was responsible for these phenomena.

III

Even in the large wealthy and progressive communities like Chicago and New York the existing facilities for the care and treatment of the major public health scourges are inadequate. I can speak with particular knowledge of New York City where, in spite of all the interest taken and money invested we are short at least 4 000 hospital beds for tuberculosis alone. We are only now beginning to recognize seriously the problem of chronic diseases, and our first modern municipal hospital of its kind is being erected on Welfare Island to be operated in conjunction with several of our medical schools thus assuring the future patients of this hospital a real medical service. It will be utterly insufficient to meet the needs of the community but it is a beginning in the right direction. Not all communities should follow this particular example of New York for only in the very large cities is it practicable to establish special chronic disease hospitals which, because of the existence of medical schools in these cities could be assured of proper medical supervision if erected in easily accessible parts of the city. For the smaller communities the solution of the problem would seem to be the building in connection with general hospitals of annexes for the treatment of subacute and chronic disease patients. It is unlikely that private munificence can be counted on for funds to build and maintain these indispensable institutions. These will probably have to be provided out of tax funds and the earlier this is recognized the more likely is provision to be made for them.

Then again in spite of the fact that New York City has almost fifty per cent of all the convalescent home beds in the country, only 5.3 per cent of the people leaving our hospital wards are accommodated in convalescent homes and very few if any, of those who have passed a serious illness at home or been attended in an outpatient department can be admitted to a convalescent home at city expense no matter how poor they may be or how much they may require institutional convalescent care. The Department of Hospitals under its present administration will not recognize any convalescent

terms It is my hope, however, that when coordinating bodies become at last truly effective, conclusions will not be reached by a majority vote of the members, but by the reasonableness of evidence and opinion which brings unanimous consent within them and on the part of the public Otherwise, there is no cooperation, but

coercion The final resolution of the health and hospital problem will, I hope, lie as much in the field of Liberty as in the field of Government

2 EAST 103 ST.

Reference

1 Hedley, O F *Public Health Reports*, December 31, 1937

WHEN DOCTORS ARE ILL

Since Grecian times it has been the unwritten law of the medical profession that the healing of a confrere should be free However, times and material conditions have changed lately and if the doctor is more than willing to minister to a sick brother there always arises the question how far this medical aid is to go, and also the family angle, that is, if the wife and children of a brother physician should be included in the "free list" On the other hand, there are many doctors who insist on paying for all services received, but then the treating doctor finds himself in a perplexity if he accepts payment, he may be looked upon as too commercial, and if he refuses the fee his brother-patient may feel hurt. The question is a delicate one, and many proposals have come forth to remedy it.

The spirit of fraternity among Belgian doctors is highly developed, and if this question has come up at different times during association meetings, it did so only because

the great majority of doctors here insist that the treatment of disease in a doctor's family should be on the basis of reciprocal give and take The latest proposal regarding this difficult problem, adopted and in process of being worked out, says a letter from Belgium in *The Medical Record*, is a form of illness-insurance for the doctor and his family In case of illness the doctor may call any confrere he likes and the fees of the latter, as well as the cost of drugs, will be paid by the insurance fund The plan is being adapted to cover accident cases, eventual hospitalization, maternity costs for the doctor's wife, and in general will include even dental costs One of the difficulties in the way is the amount to be paid by each family, and what this amount is to cover in the event of illness

It is expected that the plan will be in full operation shortly and thus one of the thornier questions regarding the sick doctor shall have been removed

DIPHTHERIA DANGER SPOTS

Twenty communities are listed in a special survey by the State Department of Health as having less than thirty-five per cent of their children under five years of age immunized against diphtheria as of June 1 The number over the required minimum percentage was one less than a year ago, Dr Edward S Godfrey, Jr, Commissioner of Health, said.

Any community having at least thirty-five per cent of its children under five years immunized may feel reasonably safe from a diphtheria outbreak, Dr Godfrey observed Those reporting low percentages are urged by the State Health Department to increase their effort with the view of protecting all children from the disease

The communities reporting less than

thirty-five per cent are Buffalo, Elmira, Jamestown, Lockport, Dunkirk, Hornell, Gloversville, Massena, Oneonta, Rockville Center, Fulton, Oneida, Oswego, Hempstead, Glen Cove, Lynbrook, Watervliet, Freeport, Valley Stream and Floral Park. Johnson City, Middletown and Peekskill were tied for the highest percentage with ninety-five each Mamaroneck was second with eighty-five per cent and Herkimer third with a reported percentage of eighty-one

Commissioner Godfrey said that all communities of the sixty-eight surveyed having 25,000 or more population, with three exceptions, reported thirty-five per cent or more of children under five years of age immunized

ceeded only by tuberculosis, lobar pneumonia, and syphilis. Among the chronic communicable diseases it occupies the third place. The study brought out anew the fact that over a course of years rheumatic heart disease resulted in considerably more deaths than whooping cough, meningococcus meningitis, typhoid and paratyphoid fevers, measles, scarlet fever, diphtheria, and anterior poliomyelitis which followed in the order listed. In persons under twenty-eight years of age rheumatic fever was the cause of more deaths than pulmonary tuberculosis. The mean age at death from rheumatic heart disease in the Philadelphia study was 36.5 years. Such, in brief, is the biosocial importance of this "*forgotten health problem*"

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patient as a city charge if he has not been such in a hospital

The provision for cardiac convalescents is most inadequate. Altogether we have five convalescent homes devoted exclusively to cardiac convalescence, all of them for children, with a total capacity of 187 beds. Considering that the average stay of a cardiac patient is 134 days, and that forty per cent of the patients stay more than six months, it will become apparent that the total number of patients accommodated could not be very large. In these five homes, rheumatic heart cases constitute the preponderating majority. Four-fifths of the children treated in these homes are of the II-A classification and the rest are practically all in the II-B group.

Nine general convalescent homes take a few cardiac children each and there are only three general convalescent homes that receive adult cardiac patients.

In a study made some years ago by the Committee on Public Health Relations of The New York Academy of Medicine, it was pointed out that of the total number of patients leaving the medical services of our hospitals, from six per cent to seven and one-half per cent are sufferers from infectious heart diseases, all of whom require convalescent home facilities. Even on a minimum basis we would need to provide for 9,000 patients of this category alone, and the total number of heart patients actually treated in all our convalescent homes—and this includes children—was 1,088 for the last year for which figures are available.

I submit, therefore, that the problem of convalescent care, jointly with that of subacute and chronic disease, will be the chief concern of the hospital world of the next quarter of a century. In this country we have on the average but 71 convalescent beds for every 100,000 population, as against 539 for every 100,000 population in Great Britain. In other words, our provision is almost eight times less per 100,000 population than in Great Britain. In the future, certain aspects of convalescent care will have to be stressed in particular, first of all, that a convalescent home is not only a health restorative force, but an educational influence of first order.

Furthermore, in homes in which you

are particularly interested, that is, for cardiac patients, and also in convalescent homes for postoperative cases, there must be established a continuity of treatment between the hospital and the convalescent home which, barring a few exceptions, is unfortunately lacking in the entire convalescent field. There are of course many reasons for it, one is the fact that the convalescent home is usually located outside the city limits and at a considerable distance from the hospital, then, with the few exceptions where the convalescent home is a country branch of a hospital, the convalescent homes and the hospitals are operated under different and independent auspices.

Homes for cardiac patients and for postoperative patients should have a physician in residence or at least a physician in daily attendance. The whole convalescent problem is much larger and much more complex than people generally realize. Take New York City for example. We have about 650,000 persons going through the wards of our voluntary and municipal hospitals every year. From one to two million people seek medical advice at the dispensaries. 170,000 families on relief in New York City receive free medical care in their homes from private physicians whose services are paid for by relief funds. During a year nearly a million calls are made by visiting nurses to the homes of the patients. From these enormous, although undoubtedly overlapping figures, certain estimates can be derived as to the need of convalescent home care. The pressure for convalescent care is so great that the New York City municipal authorities had to restrict their contributions toward the maintenance of patients in the convalescent homes to those who recover from acute conditions, which means that the majority of those with cardiac or nephritic conditions cannot be certified. Some day a new gigantic medicosocial Moses will have to arise to lead us out of this almost trackless "bewilderness," and I hope that the road he will take will not be toward the Red Sea or the Dead Sea.

As possible aids in relieving the pressure on the convalescent homes, I should like to mention first, the practice of boarding out convalescent children in properly selected private homes. This has been

carried on in New York for many years, following an experiment which was initiated by Dr Henry D Chapin, under the name of the Speedwell Society. Of possible future importance is the proposal of our Department of Hospitals for convalescent day camps to take care of suitable patients who either cannot gain admission to convalescent homes, or who for family or other reasons, would not be able to go to a convalescent home even if they could secure admission.

IV

The experience with the home care of the sick by the public relief authorities has indicated that *with proper medical guidance* this form of the care of the sick may be developed in the future with great benefit to all concerned. It is bound to reduce the demand or pressure on the existing hospital and convalescent home facilities. *I submit that the domiciliary medical and nursing care should be developed under non political auspices with the aid of the recognized medical bodies in each community and should be administered as a part of that department in the civil government of the community which deals with the problems of the care of the sick. I maintain in other words that whenever possible, it should not be administered by a social welfare but by a medical department although the economic standards of eligibility for medical relief should be laid down by the social welfare authorities.*

In order that the entire direction and the future course of proper care of the sick should proceed in an orderly fashion along scientific lines there is need of a more comprehensive morbidity index than exists at present. Hitherto we have proceeded in a more or less hit-or-miss manner and although we have done fairly well, we have wasted a great deal of effort and money and failed in many directions. *For orientation purposes in this large bio-social field, we must have something akin to a mariner's chart to make possible the kind of desirable community planning to which I referred at the beginning of my address.* A proper system of morbidity recording of which epidemiology is only a small part, must be developed. I shall not here go into the discussion of how

this can be attained. For many years I have been advocating that in our large cities we develop at least a minimum of that indispensable bookkeeping in the field of the care of the sick which, for lack of a better name, I have called 'Pathometry'. *I submit that without such a chart as pathometry would supply we shall never be able to deal with the problem of the care of the sick in an intelligently informed manner.*

This leads to the last thesis, namely, the need of cooperative effort between the private and public agencies in the field of disease prevention and the care of the sick to obtain in each community the maximum of service. As you may have noticed from what I have said before, I view the present tendency of governmental subsidies with mixed feelings. I know that funds are needed to put the health job over on a large scale. I also know that governmental subsidies will lower the sense of community responsibility. Remember as an able lawyer in New York City stated 'In our American system of government we from the beginning have drawn a sharp distinction between public undertakings in the field of Government which are maintained by public taxation and public undertakings in the field of Liberty, which are maintained by personal benefactions.' It seems to me that that balance between the undertakings in the field of Government and the undertakings in the field of Liberty may become greatly disturbed if the public's interest and concern in this whole field is not properly maintained by a community leadership that is alert and quick, vibrant and responsive. *I submit that mutual aid, self-appraisal, self-criticism and the spirit of intelligent and informed cooperation are preferable to either compulsion or government interference as expressions of mature civic responsibility.* It is the civic, social welfare and medical organizations like your own and many similar ones existing throughout the land, that must draw the plan for the future evolution of our institutions and agencies concerned with the prevention of disease and the organized care of the sick.

So much has been said about cooperation and coordination and so relatively little has as yet been done about it that one almost hesitates to invoke these

terms It is my hope, however, that when coordinating bodies become at last truly effective, conclusions will not be reached by a majority vote of the members, but by the reasonableness of evidence and opinion which brings unanimous consent within them and on the part of the public. Otherwise, there is no cooperation, but

coercion. The final resolution of the health and hospital problem will, I hope, lie as much in the field of Liberty as in the field of Government.

2 EAST 103 ST

Reference

¹ Hedley, O F *Public Health Reports*, December 31, 1937

WHEN DOCTORS ARE ILL

Since Grecian times it has been the unwritten law of the medical profession that the healing of a confrere should be free. However, times and material conditions have changed lately and if the doctor is more than willing to minister to a sick brother there always arises the question how far this medical aid is to go, and also the family angle, that is, if the wife and children of a brother physician should be included in the "free list." On the other hand, there are many doctors who insist on paying for all services received, but then the treating doctor finds himself in a perplexity if he accepts payment, he may be looked upon as too commercial, and if he refuses the fee his brother-patient may feel hurt. The question is a delicate one, and many proposals have come forth to remedy it.

The spirit of fraternity among Belgian doctors is highly developed, and if this question has come up at different times during association meetings, it did so only because

the great majority of doctors here insist that the treatment of disease in a doctor's family should be on the basis of reciprocal give and take. The latest proposal regarding this difficult problem, adopted and in process of being worked out, says a letter from Belgium in *The Medical Record*, is a form of illness-insurance for the doctor and his family. In case of illness the doctor may call any confrere he likes and the fees of the latter, as well as the cost of drugs, will be paid by the insurance fund. The plan is being adapted to cover accident cases, eventual hospitalization, maternity costs for the doctor's wife, and in general will include even dental costs. One of the difficulties in the way is the amount to be paid by each family, and what this amount is to cover in the event of illness.

It is expected that the plan will be in full operation shortly and thus one of the thorny questions regarding the sick doctor shall have been removed.

DIPHTHERIA DANGER SPOTS

Twenty communities are listed in a special survey by the State Department of Health as having less than thirty-five per cent of their children under five years of age immunized against diphtheria as of June 1. The number over the required minimum percentage was one less than a year ago, Dr Edward S Godfrey, Jr, Commissioner of Health, said.

Any community having at least thirty-five per cent of its children under five years immunized may feel reasonably safe from a diphtheria outbreak, Dr Godfrey observed. Those reporting low percentages are urged by the State Health Department to increase their effort with the view of protecting all children from the disease.

The communities reporting less than

thirty-five per cent are Buffalo, Elmira, Jamestown, Lockport, Dunkirk, Hornell, Gloversville, Massena, Oneonta, Rockville Center, Fulton, Oneida, Oswego, Hempstead, Glen Cove, Lynbrook, Watervliet, Freeport, Valley Stream and Floral Park. Johnson City, Middletown and Peekskill were tied for the highest percentage with ninety-five each. Mamaroneck was second with eighty-five per cent and Herkimer third with a reported percentage of eighty-one.

Commissioner Godfrey said that all communities of the sixty-eight surveyed having 25,000 or more population, with three exceptions, reported thirty-five per cent or more of children under five years of age immunized.

ACTIVATION OF DISEASE BY TRAUMA

JOHN J. MOORHEAD, M D, *New York City*

Half a century ago the chief causative factors in disease were often listed as alcohol, syphilis, gout and trauma. Night air was held responsible for tuberculosis, sewer gas for typhoid, and fogs for malaria. Today we more properly assign these scourges to causes that fulfill the scientific criteria of (1) origination from a known source, (2) definite clinical and pathological proof of their reality and (3) ability to reproduce them from the host into which they were introduced. In other words we now demand proof deduced *in vivo* as well as *in vitro* we reinforce clinical observation by laboratory and by pathological data.

Our proof of any disease depends upon the triad of (1) clinical signs (2) biopsy and serologic examination and (3) autopsy findings. We rely upon these three essentials, and regard them as authentic because they have proven reliable when tested by universal experience.

However of late we are confronted increasingly by the assertion that trauma is a causative factor that has not been given sufficient attention as a disease-producer and as a disease-activator. There is less clamor in asserting that trauma can produce, than there is in asserting that trauma can activate disease. Yet there are some who would ask us to believe that trauma is the responsible causative factor in brain tumor, apoplexy, goiter, tuberculosis, heart disease, cancer, diabetes, stomach and intestinal ulcer, appendicitis and in other disease known to have an etiology hitherto unassociated in any way with trauma.

It will be of interest to explore these assertions in the light of past experience in an effort to answer certain self-pounded questions.

Hence what follows is in the nature of a question and answer review, stated thus because beliefs in reality are based on the response to such queries as (I) What is trauma? (II) What is

disease? (III) Can trauma and disease co-exist? (IV) Can trauma cause disease as the sole factor? (V) Can trauma activate disease?

I. What is trauma?

The derivation in Greek means a blow, and essentially trauma means the application of unusual violence. This violence may be sudden in onset and comprise only one single act. It may be intermittent. It may be continuous.

II. What is disease?

A departure from the normal anatomic, physiologic and pathologic process may be sufficient answer.

III. Can trauma and disease co-exist?

Yes.

IV. Can trauma cause disease as the sole factor?

No.

V. Can trauma activate disease?

Yes under certain circumstances. Before replying in the affirmative to this question we must postulate certain factors determining our opinion. As a basis we must be aware of the following:

- (a) Nature, extent, and duration of the disease.
- (b) The normal or natural clinical life history of the disease.
- (c) The age, sex, color, race, occupation, social status and past history of the patient.
- (d) The prior treatment and when it began and ceased.

As to the accused injury we seek information regarding the following:

- (a) Manner of receipt of the injury.
- (b) The site and extent of the injury together with the immediate and sequent symptoms.
- (c) The type of treatment and the response thereto.
- (d) The elapsed time between the receipt of injury and the alleged onset of the disease.

VI. Is there a disease-grouping in which trauma concededly may become an activating factor?

Yes. Pneumonia, embolism, thrombosis,

phlebitis, cardionephritis, aneurism, otitis media, and meningitis are in this grouping

VII Is there a disease-grouping in which trauma plays a less probable role?

Yes Diabetes, brain tumor, endarteritis, goiter, pulmonary tuberculosis, and certain neoplasms In general, that class of disease in which the process is controlled, quiescent, retrogressive or stationary

VIII Is there a disease-grouping in which trauma rarely if ever plays a role?

Yes In general this is the group in which chronicity is the rule, or in which there are natural known periods of accession and remission, or when examination incidental to the injury discovers hitherto unknown or unsuspected pathology which indisputably must have antedated the trauma

IX In effect, then, the opinion is that trauma concededly activates disease in very few cases, that the effect is debatable in a second group, and that it can be denied in a third group?

Yes

X Are there any criteria of value in making the distinction as between these three groups that may be called
A The conceded (This is the "Yes" group), B The doubtful (This is the "perhaps" group), C The denied (This is the "never" group)

Yes

XI What are the criteria?

(1) *Type of patient* The well and strong vs the ill and weak The age, sex, race, occupation, social status

(2) *The injury* Circumstances surrounding the accident. Type, site, and extent Immediate and subsequent symptoms Presence or absence of shock, hemorrhage, infection, unconsciousness, these are very important Duration, nature, and outcome of treatment.

(3) *The disease* Type, site, and extent. Date of onset Initial and subsequent manifestations Prior evidences, clinical or laboratory Elapsed time between the injury and the disease, and whether or not this interval was characterized by premonitory signs

XII In the A or conceded or "yes" group, what are the main criteria?

Adequate injury with adequate symptoms The disease is contiguous to the site of the trauma and arises by direct progression, or via the blood stream or lymphatics An

onset in point of time and manifestations that clearly indicates that the disease in reality was a complication Proof that the disease was hitherto quiescent, relapsed or retrogressed An acute or abrupt onset is more suggestive than a chronic or slow onset. Antedating shock, hemorrhage, infection or unconsciousness are important factors Laboratory proof or biopsy often adds value to the clinical observation

XIII In the B or debatable or "perhaps" group, what are the main criteria?

In these, the injury is less severe, it is remote anatomically and in point of time, it has a normal course toward complete recovery, the elements of shock, hemorrhage, infection, and unconsciousness were not severe The disease itself had no periods of quiescence or acceleration independent of any extraneous factors The time element was too short or too long The manifestations were disproportionate to the alleged accelerating factor which in and of itself was limited in time and local in effect

XIV In the C or denied or "never" group, what are the main criteria?

In these the injury was of self-limited type The manifestations were usual and ordinary, and during the progress toward recovery there were no complications The time element was too short or too long The disease itself had an adequate etiology, the manifestations were usual, apparent, and independent of any assumed extraneous factors In terms of progression, the march of symptoms were in line with the known tendency toward progression and there were no determinable abrupt episodes The disease, in other words, was not concurrent, it was recurrent or arose from a demonstrable independent or coincident source.

Obviously there is much disagreement in attempting to thus arbitrarily divide this subject into three categories I am aware that this classification may seem incomplete and arbitrary, but we will all agree that there should be some standard by which we can allot to trauma any responsible etiologic role in disease activation Dissenting opinion probably arises most often in respect to pulmonary tuberculosis, cancer, diabetes, endarteritis, cardionephritis, and goiter Less often, controversy is aroused in respect to apoplexy, brain tumor, appendicitis, gastric or duodenal ulcer, tabes and multiple sclerosis

In the last analysis, any reliable opinion must rest upon the knowledge and past experience of the practitioner. This experience must be broad and varied enough to have withstood the varying shifts of opinion that characterize our calling.

For example, in the recent score of years, the germ theory and the endocrine theory have played a predominant etiologic role. Today we are veering toward the vitamin sources of origin, and the allergic forces are also appearing in flagrant fervor. The real answer is often best obtained by answering each for himself the self-propounded question: What usually and ordinarily happens under such conditions? This means that past experience, our own or that of our chosen advisers, is invoked and we rely upon this wisdom in this situation just as we do in any other situation. We do not flaunt our own opinion unless we have a sufficient background of experience. We do not rely upon one case. We are not misled by any form of medicolegal terminology, that curious hybrid that differs so radically from valid medicosurgical terminology. We are not beguiled by the theory of "lowered vital resistance due to injury" unless there is an adequate factual basis.

We know that disease takes a toll from the strong and lusty just as it does from the weak and puny. We know that there is such a thing as coincidence and hard luck, and that our patient may not only break a leg but also develop typhoid fever during convalescence. We know also that there is a law of averages and a normal incidence rate for certain diseases. We know that cancer from injury would have a conceded relationship if it actually existed because a thousand cases would be recorded in a few years. We know that even the alleged cases arising thus scarcely equal the normal incidence of this scourge. The same applies to pulmonary tuberculosis and diabetes. We know that an injury, like a life insurance application, often calls for a complete examination, and then for the first time certain pathological defects are noted. We know that patients can have well-advanced disease and be wholly unaware of it. We know also that patients may interpret long

standing symptoms wrongly and that their so-called indigestion was in reality an ulcer or a neoplasm. We also know that certain diseases remain hidden and suddenly burst upon the diagnostic horizon so vividly that any doctor can interpret by inspection alone. We know that we must rely upon what we know and not on what we desire to fit a particular exigency. We know that a blow on the back never caused a kidney stone. We know that a blow on the neck never caused tonsillitis. We know that a blow on the abdomen never caused typhoid, although there are some who assert that appendicitis has been caused thereby. We know that a blow on the buttocks never caused hypertrophy of the prostate, although we do wish that a sit-down strike might cause just that. We know that as yet no one has claimed that a blow on the abdomen has caused pyosalpinx, even though we do admit that abdominal violence properly propelled is the factor.

In other words, we can assert that disease processes are usually assignable to non-traumatic factors and when disease and trauma are apparently linked we should not blindly assert that relationship unless some or all of the previously listed criteria prevail. For many years I have had a reasonably active experience in caring for the injured and my own observation is that the proved relationship between trauma and disease is most exceptional.

I have never known an initiating trauma to be the cause of such varied maladies as appendicitis, apoplexy, brain tumor, cancer, diabetes, gastrointestinal ulcer or pulmonary tuberculosis. If the relationship existed assuredly it would be better known to those who are daily in contact with the injured rather than to those who only occasionally encounter this class of patient. It can be confidently asserted that the voice of experience is loud in proclaiming that any relationship is exceptional, coincidental, and doubtful.

Summary

1. By question and answer, an attempt is made to classify and thus clarify the

alleged co-partnership between trauma and disease

2 Certain criteria are suggested as a basis for proof or disproof

3 Three main groups are suggested—

the "yes," the "perhaps," and the "never" group

4 In general it can be stated that any alleged relationship is exceedingly vague

115 E 64 St

NEW BABY INCUBATOR FOR RURAL AREAS

Successful use of the modern, simplified "baby incubator" developed by the Cattaraugus County Department of Health is focusing the attention of medical leaders throughout this section of the country on the device, says the *Olean Times-Herald*.

To give prematurely-born babies in the rural areas an equal chance of survival with "city" infants, New York State, through the Division of Maternity, Infancy and Child Hygiene of the State Department of Health, has purchased twenty-four of the incubators, using the design and specifications developed by the Cattaraugus County Health Department.

Thirteen of these incubators recently were allocated to hospitals and health centers in Western New York. Others have been in use in various parts of the section for some time, as well as in nearby Pennsylvania.

Interest of New York State authorities in the device was aroused after they had seen one of the incubators. Recently they sent photographers of the state department to obtain motion pictures of the incubators in use.

So far this year, the incubators of the department have been used in eighteen county birth cases. These figures are only for the first half of 1938, while during the entire 1937 year there were only eight calls for incubators.

Simple in construction, the incubators are made of sheet metal, with a heating element below the baby's bed. The tempera-

ture is controlled electrically by a thermostat. Where there is no electricity in the home, the heat can be provided through the use of hot water bottles, heated bricks or flat irons or stones.

The device was conceived about a year ago, after officials of the department had borrowed one of the old-type "heated cribs" developed by a doctor in Chicago.

Using this early device—which was heated by electric light bulbs, rather than by the electric element—as a starting model, officials improved on it, modernizing the construction and equipment, and adding the thermostat control feature. Specifications were sent to The Metal Products Company, of Ellicottville, N. Y., where the incubator units were made up.

There are now eleven such units in the county, available free of charge to anyone in Cattaraugus County on the request of the attending physician, either at a hospital or in a private home.

Any baby under five and a half pounds is probably premature, officials point out, and needs the special care provided through the incubator.

The primary function of the device is to maintain a uniform temperature of about eighty-five or ninety degrees until the infant achieves normal weight and development. The incubator is also to emphasize the need for special care of such infants in nursing, feeding and isolating them from possible infection.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC

The next examinations (written and review of case histories) for Group B candidates will be held in various cities of the United States and Canada on November 5, 1938 and on February 4, 1939. Application for admission to the written examination scheduled for February 4, 1939, must be filed on an official application form in the office of the Secretary at least sixty days prior to this date (or before December 4, 1938).

The general oral, clinical and patho-

logical examinations for all candidates (Groups A and B) will be conducted by the entire Board, meeting in St. Louis, Missouri, immediately prior to the annual meeting of the American Medical Association in June 1939. Application for admission to Group A examinations must be on file in the Secretary's Office before April 1, 1939.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Bldg., Pittsburgh (6) Pa.

RECEDING CHIN PLASTIC RECONSTRUCTION

JOSEPH SAFIAN M.D. New York City

Under normal conditions the protrusion of the lower jaw should correspond to that of the most prominent point on the forehead. In a study of the "esthetic" anatomy of the face it will be found that a line drawn from the glabellar ridge to the point of the chin forms a perpendicular from which other measurements may be made (Fig. 1).

Malformations in the development of the mandible are generally of two varieties—(1) prognathism, excessive development of the lower jaw, producing a prominent chin, and (2) microgenia, faulty development seen in receding chins. The latter deformity has given rise to the terms 'bird face' and as the result of a popular comic strip, "Andy Gump Chin."

There is a general impression that individuals with a receding chin are of weak character and defective mentality and while there is of course no basis for such a belief, the question arises whether this deformity, which is apparent early in life does not actually produce an inferiority complex on the part of the afflicted person. The defect first becomes noticeable at about ten years of age and grows more pronounced as other facial parts attain normal development at twenty-one years of age (Fig. 2-4).

While microgenia is solely an esthetic defect the dental malocclusion which accompanies it is nearly always a difficult reconstructive problem both for the patient and the orthodontist.

Corrective treatment seeking to restore the normal bite should commence at an early age and continue until the age of nineteen or twenty, at which time the maximum approximation of the upper and lower teeth is reached. While the normal bite is being restored the chin defect becomes relatively more pronounced due to the normal growth of the other facial bones. At this time the correction of the esthetic defect should be considered and the patient referred to a competent plastic surgeon.

The main problem which confronts the plastic surgeon in the correction of

microgenia is the choice of transplant material to be used in order to obtain the most permanent and desirable result.

From the physiologic standpoint, the patient's own rib cartilage furnishes the ideal transplant material. Rib cartilage however has many shortcomings when employed in the plastic correction of this deformity, particularly if it is of the pronounced type. The first and most important disadvantage is that it is almost impossible to obtain a section of cartilage large enough to permit the proper semilunar carving to fill a defect of considerable size. The proponents of the use of rib cartilage for this purpose are invariably obliged to use two and sometimes three separate pieces. Such instances have come under my observation and it was quite apparent that the pieces of cartilage did not remain superimposed as originally intended even though they were first sutured together nor were they productive of a graceful chin curve resembling the normal. Deep skin indentations formed where the cartilages slipped apart and sharp corners presented through the attenuated skin. There was merely a substitution of one disfigurement for another.

In the milder forms of receding chin (Fig. 6-7), only a small transplant is required to bring the chin into proper relationship—in size and position—with the other facial contours.

When such cases are accompanied by an unduly prominent nose which likewise requires correction the section of nasal structure removed consisting of bone and cartilage may be implanted immediately under the tissues of the chin.

Before describing my own technique employed in the cases illustrated herein I want to mention two other methods used with varying degrees of success.

Iliac crest transplants. It would seem that a section of the natural curve of the iliac crest would answer the ideal requirement for a curved transplant. It cannot however be made to correspond to the individual curve of the mandible in a given case without a great deal of bone rasping

Fig 1 Normal relationship of chin to other facial structures

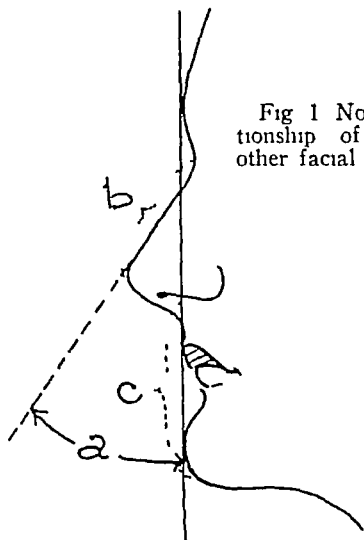


Fig 3 Same patient as Fig 2, age fifteen years. Recession more apparent

Any prolonged or severe handling of a living graft jeopardizes its viability, aside from the fact that bone grafts *per se* undergo considerable absorption.

2 Removable prosthesis This method was developed in England. I have had no personal experience with it but the technique as described to me, appears to be as follows.

An incision is made through the mucosa of the lower lip at the base of the sulcus. The tissues over the chin are undermined through this incision and a sufficient quantity of stent mold inserted to build up the chin to a normal elevation. After the mold hardens, it is removed and covered with a Thiersch graft and then reinserted into the sulcus. After ten days the mold is removed and a skin-lined pouch is left over the mandible.

The next step consists of extracting the



Fig 4 Same patient, age twenty. Condition at maturity



Fig 2 Age ten years. Slight recession of chin



Fig 5 Same patient after correction



Fig 6 NB Mild underdevelopment of chin.



Fig 7 Same patient as Fig 6, after correction.

lower teeth and making an artificial denture to which is attached an appliance which holds a prosthesis made of luxene. This prosthesis corresponds in shape to the original stent mold.

While the patient is wearing this apparatus the chin appears normal in shape but the mere fact that it must occasionally be removed for cleansing purposes is somewhat of a drawback. I cannot refrain from thinking of the seriocomic shock produced when a young woman removes her lower denture to be cleaned and finds her chin collapsing at the same time!

Technic

Based on my experience with ivory in

the correction of saddle nose I decided to employ it in the correction of microgenia. In over three hundred cases in which ivory was used in nasal correction only four showed any reaction which required the removal of the implant. It was therefore reasonable to assume that a similar proportion of patients would retain an ivory implant in the chin area. Years ago Joseph used ivory for this purpose—rather thin plates with perforations—with the end in view that the transplant would become fixed in position by fibrous tissue bands octopus like growing through the openings.

The first patient with microgenia who came under my care required only a moderately sized implant (Fig 8-9). It was



Fig 8. Decided type of microgenia.



Fig 9 Same patient as Fig 8, after correction.



Fig 10 CK Extreme type of microgenia

an excellent opportunity to test the desirability of ivory as implant material for this type of correction. There was very little reaction, in fact not more than usually follows any operative procedure. The small incision under the chin healed and the sutures were removed on the fifth day.

The second patient (Fig 4-5) had a very marked deformity requiring a large transplant. I utilized the largest piece of ivory at hand and carved it into the requisite form. The reaction was no greater than in the first case. I realized that the implant in this case might have been somewhat thicker, in order to attain a more normal chin protrusion but it was



Fig 11 Same patient as Fig 10, after correction

the largest piece of ivory I had at my disposal at the time.

The other two cases reported here were treated in a similar manner and with excellent results. The largest implant used was for the last patient in our series (Fig 10-11). The operative technique used in these cases, is as follows. After the usual preparation of the skin in the region of the chin and neck, a one per cent solution of novocain, with adrenalin, was injected along the proposed line of incision. This incision was curved, with the convexity forward, and did not exceed

ivory transplant

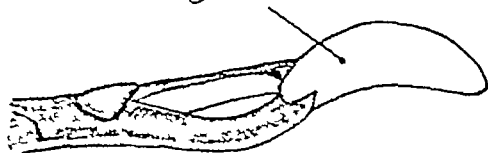


Fig 12

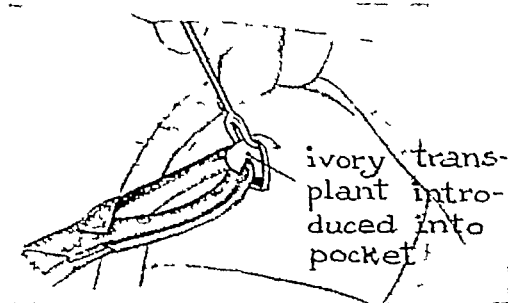


Fig 13

one inch. It was carried down to the fascia, and from this point the tissues of the chin were undermined close to the periosteum, by means of curved scalpels (Trelat). The undermining is carried out laterally, in both directions to a degree sufficient to accommodate the transplant. The previously prepared ivory implant is seized with a pair of bone forceps and one end is inserted (Fig 12-13) and pushed laterally as far as possible. A small hook is inserted into the opposite end of the incision stretching it until it is possible to swing the implant about, and to insert the protruding end into the prepared pocket. The skin posterior to the incision is then sufficiently undermined to permit it to be pulled forward and to close the incision without undue tension.

A small dressing over the chin for a few days, and the removal of the sutures on the fifth or sixth day, completes the operation

Summary

1 Ivory is the ideal material for the correction of microgenia

2 It can be accurately shaped to fit defects of any size.

3 It is readily retained by the tissues

4 It does not undergo any change in size or form

5 The correction is therefore permanent

574 WEST END AVE.

ARGYRIA DUE TO SILVER ARSPHENAMINE

OTTO STEINBROCKER, M D, *New York City*

CHC, thirty-five years old, was examined on January 12, 1937 for weakness and diffuse joint aches following an epidemic upper respiratory infection which had incapacitated him for about two weeks. The physical findings were normal excepting sluggish reaction of pupils to light, barely responsive K J. The buccal mucosa, palate, and tongue were irregularly spattered with a stippled and streaked slaty blue discoloration. The exposed skin of the face and neck, particularly of the nasolabial folds faintly suggested a dirty grey blue tinge underlying the blonde pink complexion of the patient.

The skin pigmentation was slight as yet and had developed so subtly it had not been noticed by the patient or his family until it was called to their attention. In February 1933 the patient was found to have CNS syphilis with symptoms of early paresis. He was hospitalized in New York City and was subjected to a course of malaria therapy. After leaving the hospital the serology still showed a four plus blood and spinal fluid Wassermann and a positive parietic colloidal gold curve. The patient therefore, received elsewhere 133 intravenous injections of silver arspenamine (0.3 Gm.) and 133 intramuscular injections of bismuth in oil (dose?) from May 7 1933 until January 6 1937. This rather continuous treatment was interrupted by the intercurrent infection and the arthralgia which brought the patient to me. The asthenia and joint pains were unrelated to the argyria and responded rapidly to medication.

The blood Wassermann taken at this time was four plus. Ophthalmological study revealed a mild contraction of the visual fields.

A skin biopsy for spectroscopic study was performed by Dr. M. E. Gaul who reported

that the metallic elements in the specimen were present in normal quantities excepting silver and bismuth which were in excess, the density of the silver line revealing a retention equivalent to ten to fifteen Gm. of silver arspenamine. (Argyria is thought to become clinically manifest when the retention of silver approaches that from eight Gm. of silver arspenamine.)

The patient was seen recently by Dr. John H. Stokes of Philadelphia who confirmed the diagnosis of argyria with some degree of bismuth.

The picture here emphasizes the danger of silver poisoning inherent in the cautious use of silver preparations—in this instance silver arspenamine. This hazard becomes especially important now because of the current trend toward continuous rather than interrupted treatment of syphilis. Such a procedure was apparently being followed in the management of this patient who had received more or less steady therapy with silver and bismuth salts for 3½ years.

The dangers of silver therapy have been amply reported in the past few years, the extensive studies of Gaul and Staud¹ and of Gager and Allison² by their summaries of previous case reports lending especial emphasis to the hazards involved in the uninterrupted treatment with any of the organic, inorganic and colloidal silver salts—neosalvarsan, argyrol, collargol, silver nitrate and silver arspenamine.

35 E. 9 St.

References

- 1 Gaul and Staud: *J.A.M.A.* 104:1387, 1935
- 2 Gager and Allison: *Int. Clinics* 4:118, 1935

THE HARD OF HEARING PATIENT AND HIS PHYSICIAN

JOHN W. DURKEE, M D, *Morristown, N J*

We think of the hard of hearing patient as one who has lost only part of his hearing but enough to interfere vitally with his life, social, business and educational. He differs from one who has lost all hearing and of whom we speak as deaf. These two groups, quite distinct, should not of course, be confused. In thinking of or speaking to the hard of hearing, the word "deaf" should be most carefully avoided. Years ago the hard of hearing child was usually thought of as inattentive or as not wanting to answer or as hopelessly stupid in school. The hard of hearing adult was considered complaining and stupid and was shouted at and neglected.

Some years ago those interested in the hard of hearing suspected, and later became sure, that many children failed because they could not hear enough. An instrument, the 4 A, or phonograph, audiometer was developed, which can test the ears of forty people at one time. The children in many schools throughout the country were so tested and it became evident that many more than those suspected were hard of hearing. It was also proved that most of those children who failed in school were of this group. With these facts presented to them, the school authorities and legislators of some states became convinced that here was a necessity to be met. These cities and states not only test the hearing of all pupils as part of their school system, but retest them yearly, and have added the teaching of lip reading to their school curriculum.

Most of the damage to the ear that causes impairment of hearing is the result of the ordinary nasal cold, sinusitis, tonsillitis, grip, and some of the contagious diseases, as scarlet fever, measles, and diphtheria. All of these cause congestion of the nose and throat and often of the ear, because the ear, nose, and throat are disconnected and may very well be considered as one organ.

other cases with no acute

symptoms. The patient may notice only that he is not hearing easily, especially in general conversation, and that it becomes more and more difficult to do so, or if it is a child having unusual trouble in school, some one may learn that the trouble comes from a lack of sufficient hearing. It is a constant surprise to find how many children have a decided hearing loss and that no one, even among those most constantly with them, has a suspicion of it. In these cases of no acute symptoms and of only gradual loss of hearing, it is often very difficult to make a diagnosis of the disease causing the trouble. There may be a focus of infection and from this focus—pus at the root of a tooth or in one of the nasal sinuses, or from a diseased tonsil—the infection may be carried to the ear.

If there is a diseased condition of the nose or throat, for the cure of which an operation is indicated, it should be done, and the patient may be told that the hearing may be improved. Misunderstanding and disappointment on the part of the patient will often be avoided if it is carefully explained that this improvement may not take place.

Although the acute symptoms subside and all has been done that medical science can offer, the hearing may still be impaired.

There are several questions the patient will probably ask. How much hearing have I? Can the lost hearing be regained? Will the hearing become less? After answering these questions, and in answering them the physician will have to use all the tact, good judgment, and knowledge of human nature he possesses, he should at once answer the next question that will undoubtedly be asked. What can I do about it? If the patient does not ask this question, it is almost a necessity for the physician to remind him of it. There is much that he can do about it, and the patient should surely be told, and at once. There is no more fertile field for the

medical quack than this one and unless the patient is given sound, honest advice and follows it, he is very apt to drift from one medical quack to another, trying this and that, until he has spent all his money is no better, and is utterly discouraged. These patients are deprived of many pleasures and advantages that others enjoy and grow by. The children leave school and enter business only to find at this late hour that some fields are closed to them.

It is difficult to continue in social life—the theatre, movies, lectures, church cannot be enjoyed or profited from and are given up with inestimable loss. It will almost invariably be necessary for the patient to adjust his life to new conditions. This will be no easy matter. Because of the confidence the patient has in his physician that physician may well be the best guide in his necessity. The fact that the patient especially at first, does not realize his own necessity is all the greater reason for help. The physician is also the one who can best educate the public about the needs of these patients. In doing this the physician will have to enter the field of social service. Up to this point there has been but passive cooperation on the part of the patient. He has remained in bed, taken medicine and treatment or submitted to operation. Now there must be active cooperation.

Years ago the opinion was that these patients were deaf and nothing could be done to help them. The patient was resigned, heard what he could, guessed incorrectly at the rest, or became apathetic. This is not now necessary. While those about him should speak louder and more distinctly and, if possible, in front of him so their lips can be seen, he who is hard of hearing should not and in most cases now does not expect others to shout and repeat unless he does his part.

He must realize that he has to live his life and do his work in a world where most of those about him have good hearing. He must admit that he has a handicap but that he can and will overcome it.

It was back in 1910 that some of those in the Nitchie school for lip reading saw that there was something they could do and decided to do it for themselves and others. From this beginning grew the New York League for the Hard of Hearing, an organization that has taken

its place in the city along with others doing outstanding social service. It is an organization rather unique in that it was started, and has in many positions been carried on and actively managed, by those who are hard of hearing themselves. From this beginning leagues or clubs have been formed in almost all the larger cities of this country. They conduct lip reading classes, employment agencies, social clubs, help those needing them to choose hearing aids and often give without cost used hearing aids to those who cannot afford to purchase them. In addition to this local side of their work is the larger one of bringing to the public the fact that there are many who cannot hear well, that they are doing what they can to meet that loss and that those about them can do much to help them. This public education has been done by lectures, radio talks, newspaper and magazine articles and testing the hearing of school children. In whatever city the physician may be practicing, he will find these leagues willing and helpful co-workers.

Those who have difficulty in hearing are often tired and exhausted at night due to the strain from the close attention necessary. This will be much lessened if they will learn lip reading and use a hearing aid. Lip reading should be taught as early as possible, as soon as the child is known to be hard of hearing, possibly by the mother who can learn to teach by taking a correspondence course. The child should not be sent to a school for the deaf but to a nursery school, grade and high school where other scholars have normal hearing and lip reading is a part of the curriculum. Adults will usually find night classes conducted in a public school building, library or church.

Any hearing the patient has, however small the amount, should be assiduously used and cultivated.

Hearing aids have undoubtedly been used for centuries—the cupped hand, the speaking tube, artificial drums and the electric hearing aid. Opposition will usually be encountered from the patient when an aid is suggested. The usual objection is that the aids are too conspicuous and others will know that the patient is hard of hearing. The last is fortunate

because if those about them know they have difficulty in hearing, they will usually be glad to speak a little louder. The aids are being improved very rapidly. They are much more efficient, the bone conduction attachment makes it possible for some who cannot hear well by air conduction to hear by this. The parts are being made smaller, and it is possible to wear them under the clothing and hair, so they are not as conspicuous as they were. Many are again able to enjoy the church, plays, lectures, movies, because, largely through the efforts of the leagues, some of the churches, theatres, movie houses, and lecture halls have been wired for the aids, and at times temporary sets are installed for special occasions. It is usually necessary to use an aid for some time to become used to it and learn to disregard some of the noises that are heard, but if the hearing loss is sufficient, and an aid can be found that will help, the patient owes it to himself and those about him to use one.

It is indeed sad for a physician to have a stenographer come to his office with the statement that she has just learned that she is a little hard of hearing and cannot keep a position, and have to tell her that she has a decided hearing loss and will have to find other work.

Children should in some way, in some place, secure proper vocational guidance so these failures cannot occur.

With his private patients the doctor can spend the time necessary to explain these details, but in a large, active clinic the acute cases have to be cared for promptly and consume most of the time, but those whose complaint is that they cannot hear, and have noises in their head, should have just as prompt and careful treatment as the others. This can best be done by having a special clinic or department to which these cases can be referred and where they will receive more careful treatment than can be given them in the clinic where acute cases are treated. In these special clinics where there are many cases, and more time in which to treat them, research should be done, and in some of these already established clinics it is being done. Through their special study, the cause and treatment of some of the obscure ear diseases may be discovered.

May I repeat that the physician who has carried his patient through the illness that leaves him with the hearing loss, has not completed his obligation until he has helped that patient to overcome the tragedies of that loss.

32 FRANKLIN ST

"BOARDING OUT" MENTAL PATIENTS

Describing the State Department of Hygiene's practice of "boarding out" mental patients as "very successful," Dr William J. Tiffany, commissioner, announces that plans are under consideration to increase the scope of the system next year.

On August 1 of this year, Doctor Tiffany said, 766 patients were "boarded out" in private homes, which the department had investigated and approved. He said 544 patients were mental cases and the other 222 mental defectives.

The practice of placing patients in private homes, he commented, serves two purposes—provides a home environment for the patient and results in a considerable saving to state taxpayers.

Although he said he hoped to see as many patients placed in private homes next year as possible Doctor Tiffany revealed he does not propose to "push" the practice. He said he would rather see it grow through requests from outside sources.

"Our main objective," he said, "is to give these patients a more homelike environment than state institutions can afford."

Doctor Tiffany said that although the state mental institutions have a capacity for 60,496 patients they averaged 66,725 patients throughout July of this year.

The population of the institutions was 66,876 and 6,396 patients were on parole on August 1, Commissioner Tiffany announced.

The entire threat of socialized or state medicine is made possible by a sense of false security in hospital directors and in doctors themselves.

If socialized medicine should ever be-

come a reality, doctors must blame themselves if they are forced to view the ruins of a great edifice with the mumbled explanation "We were not prepared"—*The Lincoln Quarterly*

ADENOCARCINOMA OF THE STOMACH

With Hemorrhagic Diathesis

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This case of adenocarcinoma of the stomach with hemorrhagic diathesis warrants reporting for the following reasons (1) Hemorrhagic diathesis with thrombocytopenia overshadowed the gastric carcinoma clinically, (2) A review of the literature for the past ten years shows that only about twenty cases of this nature have been reported, (3) Thrombocytosis is the more usual finding in cases of malignancy (4) To discuss the etiology of the blood dyscrasia

Case Report

A Syrian male laborer age thirty two, was admitted to the hospital complaining of pain in the lower abdomen and back. Except for "sour stomach" the patient had been well until five days before admission when he became nauseated and vomited several times. This was followed by constipation and pain in the epigastrium. The pain grew progressively worse until his admission to the hospital. Three days before admission there was bleeding of the gums, hematuria, and small, bloody, watery movements. The bleeding continued. Temperature was 100° F., pulse 112, respirations twenty-eight. Examination on admission revealed a well-developed and well-nourished young male with marked pallor. The gums were bleeding profusely and the mucous membrane of the throat was covered with blood. There were fine rales at the base of each lung. The blood pressure was 140/70. The abdomen was tense throughout with generalized pain on deep pressure. The liver and spleen were not palpable. An enema gave a return of dark bloody material with no solid particles. The laboratory data on admission was red blood count 2,570,000 hemoglobin sixty per cent (Tallqvist), white blood count 17,400 slight polycythemia moderate anisocytosis, slight polychromatophilia five normoblasts per 100 white cells counted, nine per cent reticulocytes and a decrease in platelets.

Progress notes The patient was put on the dangerous list on admission and was immediately given intravenous clyses of saline with five per cent glucose and a

transfusion. Surgical abdomen was considered but the surgeons felt that the acute symptoms were due to hemorrhage into the intestine and that surgical intervention should not be undertaken. A flat plate showed no sign of gas under the diaphragm.

On the second hospital day the platelet count was 15,420 per cumm. The urine showed a trace of albumin, and was loaded with red blood cells and an occasional white blood cell. In subsequent urinalyses red blood cells were a frequent finding although some specimens were negative. The red blood counts varied from 980,000 to 2,780,000 and hemoglobin varied from thirty to sixty-five per cent (Tallqvist). White blood counts ranged from 4,000 to 21,600. The highest platelet count was 118,360. The bleeding time on admission was eight minutes and the clotting time thirty-five minutes by the capillary tube method. Later the bleeding time was two minutes and clotting time eight minutes. There was a direct delayed Van den Bergh. The Wassermann and Kahn reactions were negative. Blood sugar was 130 Mg and nonprotein nitrogen was 65.2 Mg. A fragility test showed an initial hemolysis at 44 per cent and complete at 28 per cent. The stools were positive for blood and segments of *Tenia saginata* were found. He had a septic temperature varying from 99 to 103.8° F. a pulse rate of 100 to 140 and respirations from twenty to thirty four. Therapy consisted of eleven transfusions, liver, calcium lactate, iron ammonium citrate and morphine. A splenectomy was considered, but his condition did not at any time warrant such a procedure. The bleeding decreased but there was no marked improvement. He died on the forty-fourth hospital day with a clinical diagnosis of purpura hemorrhagica.

Necropsy

A postmortem examination was made four hours after death. Following are the positive findings. The stomach was moderately dilated. The pylorus was moderately thickened and firm except for one area on the anterior aspect measuring 0.2 cm in diameter which was very thin, the serosa alone

remaining. The entire gastric mucosa was necrotic. Microscopic examination showed adenocarcinoma of high malignancy. The liver had umbilicated, pinkish-white spots on the surface averaging 0.5 cm in diameter, and on cut section pinkish-white, firm nodules averaging two cm in diameter were noted. On microscopic examination these areas proved to be metastatic adenocarcinoma. The mesenteric lymph nodes and right adrenal were also infiltrated with carcinoma. The bone-marrow of the sternum and the vertebrae was infiltrated with pinkish-white, firm tissue which on microscopic examination showed metastatic adenocarcinoma with marked degeneration of the remaining bone-marrow. The long bones were not explored.

Anatomical diagnosis. Adenocarcinoma of stomach with metastases to the liver, bone-marrow of sternum and vertebrae, mesenteric lymph nodes, and right adrenal. Infarcts of spleen and kidneys. *Tenia saginata* in small intestine.

Review of the Literature

Beiglback¹ reported twelve cases since 1922 in which purpura hemorrhagica was the chief symptom, and carcinoma found only at autopsy. From his own observation and a review of the literature he showed that (1) only a minority of cases of carcinoma showed hemorrhagic symptoms, (2) If hemorrhagic symptoms are manifest, usually thrombocytopenia and bone-marrow metastases are present, but occasionally neither is found.

Lawrence and Mahoney² reported a case similar to ours except that their case gave a good gastrointestinal history of six years duration with positive x-ray findings. An actual platelet count was not given but they reported that the platelets were markedly diminished averaging one-two per oil immersion field.

Stillman's³ case had no metastasis to the bone-marrow. He considered the explanation of Blum, namely, that the purpura was due to megakaryocytotoxicosis with possibly some toxic action on the capillaries. Rosenthal⁴ presented two cases of thrombocytopenic purpura with carcinoma in only one of which there was bone-marrow metastasis. The case reported by Steinfeld and Shay⁵ had gastric carcinoma with no metastasis to the bone-marrow, and a platelet count varying from 66,000 to 4,000 per cu mm.

Morrison⁶ reviewed the blood picture in 100 cases of malignancy. He did platelet counts on eighty per cent and in only two did he find the platelet count below 150,000. Thrombocytosis was a common finding. Twelve per cent of these cases had metastasis to the bone-marrow and in none was there a thrombocytopenia.

Discussion

The bleeding from the mucous membranes of the nose and mouth, the gastrointestinal tract, and the genitourinary tract, with a low platelet count and prolonged bleeding time all made the diagnosis of thrombocytopenic purpura fairly conclusive. It would seem that the production of platelets was selectively depressed since the bone was still actively producing young red cells as shown by the finding of five normoblasts per 100 white blood cells counted, nine per cent reticulocytes, and polychromatophilia. These latter findings also rule out aplastic anemia.

This case closely resembled Henoch's purpura—idiopathic purpura with visceral disturbances.⁷ The gastrointestinal symptoms of colic with pain and spasm localized in the epigastrium, constipation followed by diarrhea, and melena are consistent. Hematuria accompanies the gastrointestinal disturbances many times as it did in our case. A gastrointestinal series was considered but could not be done because of the serious condition of the patient. If this had been done doubtless a different diagnosis would have been made.

Conclusions

It was shown in the discussion of the literature that some cases of malignancy showed purpuric symptoms with no bone-marrow metastases and no thrombocytopenia, that others had thrombocytopenia without bone-marrow metastasis, and that a third group had both. Our case fits into this last group. Due to the microscopic picture we feel that the thrombocytopenia and purpura were due both to replacement of the bone-marrow by the metastatic growth and to the toxic degeneration of much of the remaining bone-marrow. There definitely was a toxic action on the bone-marrow and it is possible

that there may have been a toxic action on the capillaries. This would agree with Blum's hypothesis.⁸

Summary

A case is reported of a 32 year old Syrian male, who had adenocarcinoma of the stomach with metastases to the liver, bone-marrow of sternum and vertebrae mesenteric lymph nodes, and right adrenal. The associated hemorrhagic diathesis is considered in some detail.

A brief review of the literature is herein given.

The necropsy findings indicate that the

purpura was due both to the metastatic adenocarcinoma in the bone-marrow and megakaryocytopoiesis with possibly some toxic action on the capillaries.

CITY HOSPITAL

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DIAGNOSIS OF FUSOSPIROCHETAL INFECTIONS (VINCENT'S ANGINA TRENCH MOUTH, ETC.)

Fusospirochetal infections which occur in man are caused by a synergistic group of spirochetes (*Borrelia* and *Treponema*) and fusiform bacilli. In the majority of such infections other organisms such as streptococci, higher bacteria and vibrios are also present. The lesions, regardless of their location in the body are characterized by local necrosis ulceration and putrid odor. Patients with fusospirochetal infections may have generalized symptoms, slight to very pronounced, due to absorption of toxic products.

There are four locations in the body where this combination of microorganisms is thought to occur under apparently normal conditions 1. Crypts of tonsils 2. Gingival margins of teeth 3. External genitalia. 4. Intestinal tract. Thus any lesion of a mucous surface may contain spirochetes and fusiform bacilli without causal relationship.

Lesions incited by these microorganisms are usually located in or near the above mentioned areas. It is not unusual however for remote parts of the body such as the lungs or brain to be affected. Infections of wounds, especially following human bites are not uncommon.

Laboratory Aids in Diagnosis

I Tonsil and Throat Lesions (Vincent's angina ulceromembranous pharyngitis) Swabs may be used to collect material from the ulcerated areas. They should be taken directly to the laboratory and a dark field study requested. This is the best method for the identification of the entire flora.

It is essential however that the material be fresh. If this is not practicable films should be made on clean slides, allowed to dry in the air, and then sent to the laboratory with a request for the examination desired. Appropriate specimens should also be submitted to exclude the diphtheria bacillus but such a culture is not suitable for examination for organisms of the fusospirochetal group. A differential white blood-cell count is desirable since similar lesions may be associated with agranulocytic angina or leukemia.

II Trench Mouth or Ulceromembranous Gingivitis Material from the ulcerated areas may be collected on swabs and treated as under I.

III Lung Lesions (bronchial spirochetosis lung abscess empyema or lung gangrene) These conditions may be caused by members of the fusospirochetal group. The sputum pus or material from an empyema should be sent immediately to the laboratory for examination.

IV Foul ulcerated lesions in other parts of the body particularly the genitals or infected wounds resulting from human bites should be studied for the fusospirochetal group. Capillary pipettes or swabs may be used to collect material for dark-field examination and for slide preparations. Here again it is essential that the material be moist when received at the laboratory.

Laboratory studies are of particular value in these infections because some of them respond readily to immediate and appropriate treatment.—Issued by the New York State Association of Public Health Laboratories Leaflet No. 8.

BILIARY CIRRHOSIS WITH DIABETES MELLITUS SIMULATING HEMOCHROMATOSIS

Report of a Case

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The diagnosis of hemochromatosis is usually considered justifiable in the presence of the triad of clinical symptoms—pigmentation of the skin, cirrhosis of the liver, and diabetes mellitus. Confirmation of the diagnosis may be made by a biopsy of the liver or of the skin. In the liver the characteristic picture is pigment cirrhosis with the pigment localized largely in the connective tissue. In the skin it is usually possible to demonstrate the pigment by appropriate stains.

We herewith present a case showing pigmentation of the skin, cirrhosis of the liver, and diabetes mellitus which was considered clinically as hemochromatosis but which was, following a biopsy, diagnosed as biliary cirrhosis with diabetes.

Our object in presenting this case is to point out that pigmentation of the skin accompanied by cirrhosis of the liver and diabetes mellitus is not pathognomonic of hemochromatosis, and that confirmation by a biopsy of the liver may be faulty unless one keeps in mind that biliary cirrhosis can exhibit marked pigmentation at times.

Case Report

A male, age fifty-six, was first seen by one of us (M C) in 1930 for hemicrania. He admitted a primary lesion thirty years previously. A physical examination at that time revealed a robust white male, sixty-nine inches in height and 170 pounds in weight, presenting essentially negative findings. The blood Wassermann test was four plus. He was therefore put on adequate treatment so that in a year his blood showed a negative reaction.

He was seen again in 1934. He then complained of abdominal distress after meals with occasional attacks of nausea more pronounced after the ingestion of fatty foods. Clinical examination disclosed marked tenderness over the gall-bladder with radiation of the pain to the interscapular region. There was no enlargement of the liver or spleen. X-ray visualization of the gall-bladder revealed a non-function-

ing organ with stone formation. The blood Wassermann was negative. Operation was advised, but refused.

In the summer of 1936 he was again seen after a lapse of two years. A striking change in the color of his face was noted. It was now a dark copper-brown. His complaint at this time was a loss of weight with increased appetite, increased thirst, and increased urination which he had noticed for three months. His weight had dropped to 128 pounds, a loss of forty-two pounds since 1934. With the exception of the face, the skin was normal white in color. Fullness of the abdomen was present in the right upper quadrant. The liver extended downwards about four finger-breadths below the costal margin and medialwards toward the umbilicus. The liver edge was smooth and rounded. The spleen was not palpable and there was no free fluid recognizable. The blood Wassermann was negative but the urine showed 3.35% sugar with some acetone and some diacetic acid. A fasting blood sugar at the time was 365 Mg per 100 cc.

On September 16, 1936, he entered the New York Polyclinic hospital for diabetic adjustment. He remained there eight days and responded well to treatment with a measured diet and insulin. On his discharge his urine was sugar free and his fasting blood-sugar was 169 Mg. He was on a diet of C 125, P 80, and F 135. His insulin dose was 30-0-30 and his weight at discharge was 135 pounds.

On December 2, he was readmitted to the hospital for cholecystotomy. At that time he showed a definite copper-brown color on the face. The liver was tender and enlarged downwards four finger-breadths and mesially towards the umbilicus. The blood Wassermann was negative and the fasting blood sugar was 160. The icteric index was 10.2, the Van den Bergh direct was negative, and the indirect positive. The urine was essentially negative.

He was operated on December 4 and a markedly enlarged liver was found that was slightly mottled and smooth. A small section was excised for microscopic examination. The gall-bladder was large and contained several stones which were removed. Drainage was instituted through a tube.

The histologic report by Dr A S Price was as follows

The specimen consists of a small biopsy of liver. Microscopic examination shows a portion of liver exhibiting pseudo-lobulation. There is also a definite cirrhosis with marked pigmentation of the hepatic cells and, in particular, deep pigmentation of the epithelium of the bile ducts in the portal canals. There is no pigmentation of the connective tissue. With a history of biliary calculi, the picture is entirely compatible with that of an obstructive biliary cirrhosis. *Diagnosis* Obstructive biliary cirrhosis.

A recent examination of the patient showed considerable improvement in his condition. He had increased markedly in strength, and his weight was now 158 pounds. On a diet of C. 180, P. 90 and F. 135 he was sugar free with a fasting blood sugar of 132 Mg. The skin has completely lost its bronzing and the liver was no longer tender although it was still slightly enlarged. He was free of digestive and other complaints.

Discussion

This case, because it met the clinical requirements was held for some time to be one of hemochromatosis. The opportunity to obtain a biopsy of the liver however, made a histologic examination possible and consequently a change in the diagnosis to biliary cirrhosis with diabetes.

It will be noted that in 1936, at the time of the third examination his liver had become markedly enlarged, presenting a smooth and rounded edge. At the operation this was corroborated, an enlarged smooth liver, slightly mottled, was found. It was the type of liver thought by Howard and Mills¹ to be invariably present in hemochromatosis. They believed the normal-sized or atrophic liver might be found in cases which had run a long period and meant a shrinkage of a previously enlarged organ. Lisa and Hart² in a series of cases of hemochromatosis coming to autopsy at the New York City Hospital, likewise found the enlarged liver in all their cases. Such a liver on the other hand answers the requirements for the diagnosis of chronic biliary cirrhosis. Hence, a differential diagnosis from a gross pathologic examination of the liver is difficult to make.

It will be further noted that the histologic examination showed a cirrhosis

with pigment deposited in hepatic cells and in bile duct epithelium. At first glance the specimen was suggestive of an early hemochromatosis. There was a definite cirrhosis present which was complicated by marked pigmentation. The distribution of the pigment however, was not truly characteristic of hemochromatosis even in the early stages. Our present conception of the pathogenesis of this condition is that the pigment is deposited in the various cells of the body but probably earliest and to the greatest degree in the liver. The parenchymal and endothelial cells have the ability to transform the pigment into hemosiderin, while fibroblasts cannot perform this function and so retain the pigment. Hence the histologic specimen should show most of the pigment in the connective tissue. This is borne-out by the histologic findings in these cases. With little or no pigment in the connective tissue and a predominance in the hepatic cells and the bile duct epithelium, one would have to consider this deposit as bile. The microscopic diagnosis of this specimen therefore would be obstructive biliary cirrhosis.

There have been reported in the literature to date 284 cases of hemochromatosis. It is very possible that some of these cases have been diagnosed solely from clinical signs. Therefore, it is within reason to suspect that a number of them have been falsely diagnosed. We hold the belief that this condition is extremely rare notwithstanding the fact that Howard and Mills¹ reported finding ten cases at autopsy in one year at the Boston City hospital.

Conclusion

We have reported a case of biliary cirrhosis with diabetes mellitus and pigmentation of the skin that simulated hemochromatosis. From this case we are satisfied that a clinical diagnosis alone is not final in hemochromatosis.

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BETWEEN MENTAL HEALTH AND MENTAL DISEASE

B LIBER, M D, D R P H, *New York City*

Editorial Note Under this title will appear short summaries of "transition cases" from the service of this author in the New York Polyclinic Medical School and Hospital. The descriptions are not complete clinical studies, but will accentuate situations from the point of view of individual mental hygiene such as crop up in the every day practice of medicine

Inhibitions

Here is a man whose life history is a painful tale

When he first presented himself years ago to a New York clinic, he was inclined to commit suicide. As he was questioned about it, however, in a direct manner, he denied it, but added "Who's goin' to stop me from jumpin' in front of a car in the street or in front of a subway train? You go out and, you know how it is, you don't care what happens." And he immediately protested "Oh, I used to feel that way. But, no more, I'd never do it."

He mistrusted so much the people with whom he lived, that he carried many of his belongings about his person. All his pockets were bulging and packages were sticking out from both sides of his overcoat. He seemed to misconstrue the "*omnia mecum porto*," the word of the ancient philosopher who was naked, into actually carrying upon himself everything he owned. He had been living at the shady end of society and betrayed his association with it by using characteristic expressions and telling significant anecdotes derived from his erstwhile, but now abandoned, life in the underworld or on the fringes of it. He illustrated this environment by narrating, for instance, that one of his friends, grateful to his doctor for having cured him of an illness, wanted to reward him, outside the pecuniary fee, and said

"Doctor, if you want anyone to be bumped off, I'll oblige you, I'll gladly have it done for you."

"But I'm out of it," our patient said, "I don't want to see them guys any more."

He was just then groping toward the light and glad to accept a friendly hand.

He disappeared, travelled much, had many more adventures, this time of another character and finally became a salesman and "made good." He even acquired a store and settled down definitely.

When seen again in a later stage of his favorable evolution, in a sort of reincarnation, he was still somewhat disturbed, but only from time to time and never helpless. He earned a good deal of money and kept a widowed aunt and her young children although he was not living with them.

He was decently dressed—in fact with taste—and his language was polished.

His complaint was his disability to regularly associate with people and particularly with women. Long ago, when much younger, he had been more desirous to be "like everybody," to love a girl and get married. Now these yearnings were rare and came in the form of attacks. Then he would despair and stay at home, entirely by himself, for two or three days.

His own—abbreviated—description of his ordinary state of mind follows:

"I am self-conscious. I am all right in business. In a group I become dull, tied in a knot, I just don't seem to be able to let myself out. Sometimes I still have an impulse to put my arm around a woman's waist, but I never do it, something holds me back."

The memory of his father, who died when patient was a small child, comes back to him as that of a red-faced, bad man with "frightful whiskers"—probably because he neglected to shave—always drunk, beating both him and his mother. He hated him.

He sees his mother, also dead long since, in a close embrace with a strange man and in dread lest her husband should see her in that attitude. Although she submitted to his blows, she was domineering in her relations with other people and especially with her little boy. Her face, her sadness, which never disappeared from it, her sternness when she gave orders to him, did not leave him through life. He conspired with her, watched outside to see if father was coming and notified her and her lover in time. He admired and obeyed her.

Then he was in a Catholic Home for orphans, from the age of five to the age of twelve and that had the strongest influence upon him. There are boys only. Girls are taboo in every respect. The only occasion for seeing them is the afterschool half-hour. Any boy who paid attention to a girl was called a "sissy" by the playmates and was often even reported to the home supervisors. But our patient was thrilled by being near girls. At ten his first masturbations, but very limited and

hurried because of the scare of the con-
fessional each week.

"In the period of over seven years while living in the Home no one ever visited me as other boys were visited by relatives. When I came out of there I was a strange child among strangers. I lived with grand mother, mother's mother. She was nice, but she was Protestant and told me that neither the people in the Home nor my father had been good. However there were other persons living with her some distant relations and they all kicked me slapped me and made fun of me for being a catlicker. I was sent to peddle papers and did not receive one cent of the money for myself. Some of the kickings I received I well deserved but never was I given one word of encouragement, nor one word of sympathy never a word of advice but somebody who was angry or hysterical bellowed or screamed at me. Never did I dare ask a question, being afraid of the reception it would get. Then I ran away and—strange to say—I was picked up by a Greek-Orthodox priest, who employed me for various errands and gave me food and a place to sleep. He used to meet a Rabbi whom he knew from the old country and they both wore beards which made them resemble my father or as much of him as I could recollect. And one day I had a horrible thought all three were the same person and just as I had feared and hated my father so I began to hate and fear the Priest and the Rabbi. I left my Orthodox master. And ever since I cannot escape the thought that being a Catholic like my father or having another religion like the Rabbi or the priest was a pure coincidence that they were interchangeable persons and therefore I lost my respect for all religions."

At a later stage, however he thought he could return to faith and addressed himself to an elderly devout Catholic he had known in childhood. This well meaning gentleman did all he could to bring the young man back to his Church but failed.

Some passages of the letters received by our patient from this sincere believer are quite typical and they read thus:

"Just hop out of your warm bed a little extra early, go down to Mass and Communion, try to put in a few half-hour periods of adoration. Christmas eve is a day of fast and abstinence, of spiritual preparation for Christ's coming. New Year's a holy day of obligation, requiring attendance at mass. Once an individual becomes gross in matters of the difficult commandment, once he loses the desire and the hope to reform himself he begins to show weaknesses in faith. If you fall

into any form of unchastity get back immediately through a good confession to the state of grace. Within a few days is the Feast of the Holy Family which should be your ideal of family life. Look deep down into that soul created by God and purchased anew with His Blood on Calvary. Are you not happiest when in the state of grace—a son of God and brother of Christ—with Christ and Our Lady instead of the devil at your side? Yes lick the devil—and lick yourself especially.

If you would only give the sacraments an honest chance you would really be surprised how things pick up how the helping Hand of God through grace would soon control the wilder lower trends of nature!

Pray during your Thanksgiving to Our Lady of Lourdes. She is the health of the sick. God made things good pain and death come as a penance for sin. Thank him for the consecration of suffering. Whether you eat or drink or whatsoever else you do do all for the glory of God. Ask for relief from illness if relief is God's holy will.

Patient made a last effort to believe. If that had been possible he might have been cured by devoting himself to the Church entirely. But his old skepticism and rebellion much increased during his adventures were still present.

In the mind of this man there were two inhibitions. One against all women an opposition left from the sojourn in the Home. As a child he had evidently been more naive than his little colleagues and had taken literally both the prohibition to play with girls and the spirit with which this was inculcated. He had not been able to free himself from that curse. Then the mother's influence and ascendancy never ceased to overpower him. No it was not the common "mother attachment" but a strong tie composed of pity and awe, at the bottom of which there may have been an erotic feeling for her or not. For a masochistic personality *domination* in a general way may have the same effect as sexual possessiveness.

A condition of this kind may be incurable. Everything done by several good mental physicians seemed to have been of no help as far as it concerned the attacks. But a great improvement there was. This happened to be, apparently one of those cases in which the patient can get along with his trouble. He was quite adjusted to it. And now since one of his doctors succeeded in convincing him of that, he was satisfied became much calmer and accepted the situation unflinchingly.

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EDITORIALS

Medicine Decides

Assembled in an emergency session at Chicago, the House of Delegates of the American Medical Association has declared its uncompromising opposition to compulsory sickness insurance. By far the great majority of the 110,000 physician-members of the Association will concur unreservedly in this stand.

The profession's knowledge of the problem of medical care is based on many years of first hand experience, not on a few superficial surveys and statistical tables which do not truly represent the prevailing state of affairs. Having observed the debasing effects of political control on medical service in many European countries, it is loath to see a similar system introduced here. It stands firm on the stand that quality, rather than quantity, must be the aim of any acceptable medical program, and that it is folly to abandon a method of providing medical care which has reduced the morbidity and mortality rates of this country to an enviable level and is yearly driving them lower.

This does not mean that organized medicine underestimates the desirability of wisely conceived governmental health projects. The A M A approves the extension of public health services, but believes they should be organized and administered by local units of govern-

ment, in accordance with local requirements. The role of the Federal government should be limited, wherever possible, to the provision of financial and technical aid.

To bolster up unfounded charges of Toryism in medicine, the advocates of compulsory sickness insurance frequently charge that the profession is opposed to such valuable innovations as group hospitalization insurance. The House of Delegates spikes such misrepresentations by endorsing hospital service insurance and voluntary indemnity plans to cover the costs of emergent and prolonged illnesses.

While emphasizing the role of local governmental units in public health work, the profession is alive to the desirability and need for Federal efforts in this field. The A M A therefore urges the creation of a Federal Department of Health with a Physician-Secretary at its head who shall be a member of the President's Cabinet. Such a department could do valuable work in planning and coordinating national health activities and could remove much needless misunderstanding and friction between Washington and the medical profession.

For Better Publicity

The Public Relations Bureau of the

Medical Society of the State of New York has compiled an interesting summary of "air opinion." From its figures the profession is drawn to the unpleasant conclusion that on the whole medicine is receiving bad notices. While a few of the broadcasts on medical questions attempt to maintain an impartial attitude and two or three commentators are friendly to the medical viewpoint, for the most part radio, like the press, "plugs" for socialized medicine.

It is only fair to concede that some of these opinions represent the honest, studied judgment of the speakers. There are sincere, disinterested believers in compulsory sickness insurance as in communism, fascism, and a host of other social and political theories. Undoubtedly, however, other factors besides pure belief enter into the espousal of socialized medicine by these privately owned enterprises committed to the profit system.

In the case of the radio, one need not seek far to find the shadow of the Federal licensing powers. Whenever possible the broadcasting companies play along with the Administration. This was conspicuously demonstrated during the National Health Conference in Washington last July when one of the large networks put on a program of the Federal Radio Project which was a thoroughly misleading compound of "false emphasis, distortion and half-truths." Almost every sentence was deliberately designed to break down public confidence in the private practitioner and build up a demand for state medicine.

Another element in the propaganda for compulsory sickness insurance is the desire of the broadcasting companies and newspapers to win friends by a seeming espousal of the public good. At the present time medical care for all seems a slogan designed to win large scale support. Could there be a cheaper and easier road to popularity for the radio and newspaper chains? While clinging jealously to their own rights they have no objection to sacrificing the rights and prerogatives of the medical profession

particularly if they see no public harm in state medicine.

If they fully understood the situation, however, much of this could be changed. The average newspaperman or radio commentator gets his views on public health from the hand-outs of social welfare agencies and government bureaus which stand to gain money, power, and prestige from the adoption of compulsory sickness insurance. If every physician who has a newspaperman or radio script writer or commentator among his patients would trouble to explain the basis of medicine's opposition to socialization, much of the antagonism shown to the profession on the air and in the press could be dispelled.

The Graduate Fortnight

The eleventh annual Graduate Fortnight of the New York Academy of Medicine begins this year on October 24. It is devoted to an extensive study of diseases of the blood and blood-forming organs and it numbers among its contributors the outstanding authorities in this branch of medicine. The macrocytic anemias and those due to iron deficiency—the granulocytopenias, the leukemias, and the hemorrhagic diseases are among the numerous topics to be presented. In addition, hematohistology and diagnostic procedures will be discussed.

Supplementing the evening lectures are a series of afternoon clinics which will be conducted at the various hospitals in New York City. Here every phase of the subject will be demonstrated practically by experienced clinicians. There will also be a scientific exhibit at the Academy building which has been arranged in such a manner as to represent an encyclopedia of all that is presently known concerning these diseases.

The profession is cordially welcomed to attend the Fortnight. Information and tickets of admission can be obtained by addressing the New York Academy of Medicine. Judging from the success of the prior meetings, this one undoubtedly will measure up to the high standard

of medical post-graduate instruction sponsored by the Academy. It is an opportunity most physicians will welcome to bring their knowledge of this topic up to date.

Bee Sting Therapy

There have lately appeared many articles concerning the value of the bee sting in the treatment of rheumatic conditions. This form of therapy is not new, having been first described by Terc in 1880. In this country favorable results have been reported by several investigators in the management of rheumatoid arthritis. In view of the widespread interest evoked, it is perhaps wise to call attention to the experiences of Nicholls¹.

Twenty-seven cases of active rheumatoid arthritis were subjected to the sting of the honey bee at weekly intervals. Starting with the sting of one bee, the dose was gradually increased. As many as 1434 stings were administered to one patient over an eight month period. The results obtained were varied. Three cases showed marked improvement which has continued for a year after treatment was stopped. Five stated that they felt better but there was no evidence of improvement in the joints. Seven suffered an aggravation of their condition while in five no results were obtained. Severe reactions to the bee sting were noted in some instances (chills, vomiting, increased swelling of the joints), necessitating the withdrawal of further active treatment with the bee stings.

Discounting the natural aversion that many patients exhibited toward this form of therapy, Nicholls feels that "bee sting therapy had no constant or noteworthy effect in the treatment of rheumatoid arthritis."

CURRENT COMMENT

"HONEST CRITICISM, erroneous though it may be, we must expect. If, in addition, we are provided an opportunity for a fair hear-

ing we can have no complaint. But when supposedly reputable publications resort to slanderous statements and false accusations showing no regard for facts, we have no protection except the courts and the intelligence of the public.

"Let it be said then that we welcome change if justified by facts and when it in no way endangers the well-being of patients. People who know and understand this should come to the support of the medical profession condemning in no uncertain terms propagandists who are running wild. As a matter of fact, the people of this country have more at stake in this controversy than the medical profession itself"—From the *Bulletin* of the Milwaukee Medical Society recently.

"NOW—RIGHT NOW—IS THE TIME that every thinking member of medicine should obtain the name of the candidates for Congress and for the State Legislature and have heart to heart talks. Show them the undesirable facts that are bound to arise out of state or socialized medicine, the increased sickness because of inferior treatment, the increased death rate that will follow and many other undisputable medical facts against any such state medical service that is compulsory.

"This matter of keeping in touch with the elected candidate after the election is very good, but it should be a continuous process from the primary election until the candidate has been seated and even then frequent correspondence can help give him a deep and true picture of the medical situation as analyzed by those who should be the best qualified to talk on medical matters, the physicians.

"If you do not do this, your political representative will be guided by non-medical advisers who may honestly believe what they say, but whose meddling in medical affairs will be disastrous to the public far more than it will be to the medical profession.

"Do not put off this most important phase of your medical career, expect others to do it for you or try to excuse yourself for not doing your share to save progressive, health-giving AMERICAN MEDICINE"—Dr. Clyde P. Dyer asking "Will You Do It?" in the September 23 issue of the *Saint Louis County Medical Society Bulletin*.

"A GIVEN COMMUNITY SHOULD be made conscious of the importance of adequately supporting its professional men. If they are not well compensated, the quality of professional service necessarily must become in-

¹ Nicholls, E. E. N. Y. STATE J. MED. 38:1218, 1938.

ferior The average practice in medicine must guarantee something more than the bare necessities of life to allow new equipment, books, medical dues and post graduate work which is frequently so indispensable to continued progress in a profession."—From the Bulletin of the Sangamon (Mo.) County Medical Society

"MEDICINE HAS SEEN TOO MANY fads come and go to be swept away by social or scientific panaceas. The greatest bulwark of the public health is the caution of the organized profession which has raised medical practice to even higher levels without sacrificing the laity to foolish enthusiasms and unfounded hopes. If this be Toryism, make the most of it!"—A new way of looking at it, suggested by *The New York Medical Week* recently

"BECAUSE THE MINORITY GROUP of this famous Committee (on the Costs of Medical Care) refused to fall in line and agree with the social workers on the Committee that the practice of medicine in this country should be turned over to the control of politicians, and because the organized medical profession agreed with the minority group wholeheartedly, the same insidious well organized and apparently well financed propaganda has been used to convince people that the American Medical Association is an obstructionist group and opposed to any attempt to meet changing conditions by a constructive program.

"American medicine stands ready to cooperate in any workable plan to relieve the burdens of the group needing help, and has said so on many occasions through its elected representatives in the House of Delegates of the A.M.A. but American medicine

demands that any such plan have an honest motivation, that it be directed at the group most in need of assistance and above all that there be no playing politics with medical care.—In its September issue, the *Nassau Medical News* asks whether it shall be Propaganda or Medical Needs

"OF LATE SEVERAL LEGAL JOURNALS have joined the pack in snapping at the heels of the medical profession. One of these is the *Yale Journal*. The socialization of medicine is their theme. However we might admonish them in the words of the Good Book: 'Thou hypocrite, first cast out the beam out of thine own eye, and then shalt thou see clearly to cast out the mote out of thy brother's eye, and not before!'

'Unlike law, medicine always marches forward with its face toward the sun. Precedent does not control its thinking. But law like Lot's wife, must look backward. If it was good enough for Blackstone it's good enough for us! Thus saith the law'

'Several of our lawyer friends have taken us to task for daring to resent their advocacy of 'socialized medicine.' For this we have been accused of a lack of social mindedness. However it is so easy to be social minded in spheres other than one's own

"The medical profession yields to no one in keeping pace with social trends. Organized medicine in the United States is fully conscious of its obligation to the people. If some changes in medical practice are promulgated by government medicine asks that the changes be evolutionary not revolutionary and that the patient as an individual and not the politician be given first consideration"—A "Timely Brevity" in the August *Milwaukee Medical Times*

ANNOUNCEMENT

Journal Management Committee

To those members and other physicians who have received a letter on stationery of the NEW YORK STATE JOURNAL OF MEDICINE signed by Steven K. Herlitz relative to publication and sale of a compendium on histopathology for use of students preparing for examination by the American Board of Otolaryngology the Committee wishes to state that this sales effort has been conducted without authority

The NEW YORK STATE JOURNAL OF MEDICINE does not publish or sell medical books and the stationery of the JOURNAL Management Committee was used without its knowledge or consent. The Society, the JOURNAL Management Committee, and the NEW YORK STATE JOURNAL OF MEDICINE assume no responsibility whatever in this matter

GEORGE W. KOSMAK, M.D., Chairman

PETER IRVING, M.D., Secretary

Presidential Address

WILLIAM A. GROAT, M.D., *Syracuse*

Of the many things which have tortured the world in recent decades, one of the most extraordinary has been the growth of unprincipled adverse propaganda. Propaganda against something or somebody, as contrasted with propaganda for something or somebody. Derogatory, distorting, always with an ulterior motive, this type of insinuation has ranged from blackguarding of one nation by another to whispering campaigns against individuals. I am not sure but that the sun and the moon have been talked down or up depending upon the exigencies of the occasion.

The profession of medicine is a noble one. We may think of it as the most noble. Perhaps we have a somewhat swelled head about that, but I point out to you that questionnaires to college students and other groups have shown that among people generally the profession of medicine is considered respectable, praiseworthy, and the one altogether to be honored and loved. The medical profession, a division of those devoted to scientific learning, who also are handlers of the interchangeable tools of investigative research, alive to the necessity for safeguarding against exaggeration, misconception, and muddling, are repeatedly misunderstood as all science is misunderstood, and that is not new. That we should be attacked, however, by those who know better, that half truths, tours of force and all those petty and gaudy methods of the present day propagandist and besmircher should be turned on us, is new and lamentable.

It would be sadder still if we would lose our dignity and if we were to forget our birthright. Justly we insist upon our right to be heard, our right to be consulted, and our right to decide those questions which through education, vocation, and legal authority we alone have the right to elucidate.

Waves of propaganda have swept across us, not in tidal relation to one another but full of cross currents, counter movements and paradoxical surges.

You should read and reread in its entirety

the proceedings of the very recent special meeting of the House of Delegates of the American Medical Association at Chicago which appears in full in last week's *Journal* of the Association. You will of course find it interesting reading for the information it contains. You will find the proceedings to have been a credit to our profession. You will see that no birthrights are forfeited and that our traditional obligations for social betterment are reiterated. The American Medical Association asks only what medical science has a right to ask and calmly informs only of things upon which it can speak with authority.

The propaganda which has swept us in three great waves is not of such high character. Somewhat informed, reasonably intelligent people have not told the whole truth, using only those parts of it which seem to favor their untried theories. With half-truths and tongue in cheek they have besmirched us. These three successive waves, disregarding the wavelets, have been

1. The cost of medical care

Without further elaboration I would say that the fallacies here gather around these things. Inclusion of the cost of things which are not useful to the people or desired by the profession, and the failure to deduct the great savings which could be made by governmental elimination of nostrums and quackery.

2. Medical care for all the people

Here we find no true definition of what constitutes adequate medical care. Should it be based upon what the science of medicine considers to be sound medical care or upon what lay groups or patients prescribe, or decide they should have?

3. Releases relative to the interdepartmental conference and compulsory sickness insurance

A parade of assumed shortcomings

Read at the 32nd Annual Meeting of the Fourth District Branch of the Medical Society of the State of New York, Amsterdam, September 30, 1938

of the medical profession in supplying things called medical necessities and using these imperfect data to justify a governmental bureaucracy to distribute medical service as a commodity

Contrast this with our viewpoint which permits us to see for the public good

(a) The need for better methods, better and simpler ways, for caring for and paying for the medical needs of the people.

(b) Making available the necessary care, but not the pampering indulgent care for no higher motive than political expediency

(c) Ability to show that what has been called medical necessity is unsound scientifically, socially and economically and not the product of minds properly educated in what human needs really are

The endeavor of the theorists has been to show the necessity for elaborate, costly bureaucratic governmental control which would be ridiculously expensive as all such political bureaucratic controls must be. There will always be the Utopian possibility of ever complete medical care, for all the people, everywhere, but the twentieth century actualities are not the result of the shortcoming of the medical profession. The doctor is way ahead of good roads, markets, and conveniences in the wilderness. He has supplied human needs to out of the way places from pole to pole, back and forth across the equator. The doctors' shortcomings are human ones. We are more interested in correcting them than anybody else, for we are and should continue to be self-critical.

The barbed hook is slyly baited with the declaration that more government moneys would be available as new bureaus are erected to multiply the uncontrolled expense. Who pays?

Are we to be seduced by the sweetness of a governmental sugar daddy? Cannot we as an intelligent group realize that as citizens we pay for governmental increases in physical plants special funds extra medical care and that if those expenditures are made without reason it is our money that is wasted? If we gaily develop this and similarly expand that if we encourage the expenditures of governmental money un-

necessarily joining the procession saying "We might as well get our piece of it," if elaborate medical care of unproductive types and garish institutional expansions are effected, if hordes of so-called social workers and lay public health meddlers are released, with our approval, just because we get a little dip out of the pork barrel we shall no longer deserve to be practicing medicine. Are such things to be because we do not realize that somebody must pay, and that we are a part of that somebody?

The big but thinner and thinner walled bubble in this ebullition of spending is blown by those who do not realize that it is their breath that blows it their blood that warms it. That a considerable part of the spent money goes to pay for bureaucratic control and political advantages and not for the ostensible purposes of charity or relief, is no less depressing than the fact that these false purposes so often are not socially or economically sound and are not calculated to build a strong, healthy minded and industrious people.

Occupational therapy still is a valued therapeutic agency. Swinging a pick is not a social injustice. Honest toil should be encouraged as an individual responsibility. An opportunity to work for one's living is the God given right.

I know what you are thinking right now and I want you to realize that I am thinking with you. It seems difficult to discuss these matters without appearing to talk politics. The truth of the matter is that we should not talk politics. We should keep out of diverting controversy expect misunderstandings but endeavor to correct them. We should maintain the high minded professional attitude to which we are bound by tradition. Our successes have been due largely to the clarifying influences of a detached professional viewpoint. The infiltration of ideas contrary to the experiences of the past and we believe incompatible with sound building for the future penetrates both of the major political parties. It is historical fact that such things come intermittently in times like these. If we bicker over charges and countercharges question each other's motives and become involved in the altogether too prevalent claptrap of the day we in turn lose our perspective and defeat the very thing for which we strive. It is our business to see that people get proper medical service. If we breed ineffectiveness and re-

tialiation, if we search out the faults in those outside, instead of trying to be better within, we may injure those whom we oppose, but we are more extensively injuring ourselves. Wars are not won by anybody. Always there is loss to humanity. In our particular controversy over what is best for the health of our people the destructiveness falls upon the sick and suffering, the very ones whom we are sworn to protect. Arguments cannot be won. Principles, however, can be established. There are large units in the lay welfare and humanitarian groups who have few if any differences with us. Those that have differences are usually doing what they think is right. We may disagree with them and it becomes our duty as physicians to endeavor to teach them and to lead them if the way is clear.

There are in the wishes and demands of labor those threads of sincerity and hopefulness which fit well with our ideals for temperance in all things as a road to health and happiness. There is in the attitude of industry a better appreciation of the importance of healthy bodies and minds for their employees. The industrial world is learning from us the costliness of epidemic and chronic disease, the wastefulness of occupational hazards, and the contribution to comfortable living and working conditions made by what we call preventive and industrial medicine. We must cooperate with all these groups. We must gather them under our leadership, the natural one because of our education and experience. It is the medical profession which can show the healthfulness of labor under good conditions, with tasks suited to the mental and physical capacity of the individual. Peace which comes from plenty and freedom from the chilling influences of fear are potent factors in the promotion of public health. Despair, disorientation and disease march together. The aggravations from overburdening of average minds, the lack of healthy outlets for emotional stresses are closely

connected with immorality and debauch. I mention these things to show you how the more superficial lay viewpoint cannot penetrate the medical latticework of the social problems they hope to solve as can the trained eye of the doctor.

Let us be settled in our minds that exhibitions of force, the matching of attack against attack, the parade of our virtues on the one hand, and the deficiencies of this or that outside group on the other, will get the world nowhere. Can we better verify the soundness of our position than by keeping out of destructiveness, keeping away from political intrigue and the possibilities of gain for the thing alone? There is no better authority for keeping away from preachments and dictatorial announcements than to quote the President of the United States who as Mr. Roosevelt broadcast to the entire world an appeal to Herr Hitler not so many hours ago. The President as an individual, yet an inimitable international figure, appeals for the calm and wise settlement of controversies destructive to human interests. He asks the abolishment of things calculated to deprive great masses of people of human needs, not through bloodshed but by the increase of wisdom. I quote him "The question is not of the errors of judgment or the injustices committed in the past. It is the question of the fate of the world today and tomorrow."

Whatever existing differences may be, and whatever their merits may be my appeal is solely that negotiations be continued until a peaceful settlement is found and thereby a resort to force be avoided."

We accept the President's broad and universal world principle of peace, health, and justice. Reduce it to that which is a true part of the question of medical care which we are discussing today and we agree with every word of it.

May these clearly expressed principles of peaceful justice be the guiding ones at home as well as abroad.

A TOURNEY WITH ATTORNEY

A lawyer got into an argument with a physician over the relative merits of their respective professions.

"I don't say that all lawyers are crooks," said the doctor, "but you'll have to admit

that your profession doesn't make angels of men."

"No," retorted the attorney, "you doctors certainly have the best of us there"—*Nebr State Med Jour*

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked private. All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

TREASURY DEPARTMENT
U. S. PUBLIC HEALTH SERVICE
WASHINGTON

New York State Journal of Medicine,

Sirs

The Carlo Forlanini Institute in Rome, which specializes in lung diseases and tuberculosis, organizes yearly, post graduate courses for physicians. These courses are held every year from January 15 to April 15. The program for the next course is as follows:

Pathogenesis of tuberculosis—The doctrine of respiratory trauma.

The biologic factors in the local reaction of pulmonary tuberculosis.

The various clinical forms of pulmonary tuberculosis.

Histology and general histogenesis of pulmonary tuberculosis.

Pathological anatomy of the various forms of pulmonary tuberculosis.

The collapse therapy (pneumothoracic) technique—indications—mechanism of action.

The pleural complications—treatment.

The surgical collapse therapy with particular reference to the methods of the School.

The principal forms of extra pulmonary tuberculosis.

Tuberculosis and pregnancy

Tuberculosis in infancy

Tuberculosis in upper air passages

Tuberculosis of bones and articulations

Hygiene and tuberculosis

The fight against tuberculosis in Italy

The Italian ambassador at Washington has offered two scholarships to American physicians selected by the Public Health Service. The physicians chosen will be exempt from registration and tuition fees and will be granted a fifty per cent discount for travel on Italian State railroads.

The candidates should be graduates for at least three years, having practiced in a Sanatoria or in medical or scientific institutions specializing in tuberculosis and lung affections.

I am wondering whether you would have a news item of these courses included in the next issue of your Journal with the notation that any physicians interested should apply

before October 25, 1938 directly to the Surgeon General of the Public Health Service, Washington, D. C.

Respectfully

ROBERT OLESEN
Acting Surgeon General

September 24 1938

More Anent Mesonexy

Toronto
151 St George St.

To the Editor

With reference to the enquiry of Dr L. H. Conly, (page 1141 N. Y. STATE JOURNAL OF MEDICINE Aug 15, 1938) the derivation of the word *Mesonexy* is submitted. It is a coined word to express the state of balance between extreme changes in the dissociation curve of haemoglobin studied by Barcroft.

Liddell and Scott's Greek Dictionary (8th edn, pp 944-945) shows forms of *Mesos* including *Meson* a neuter noun meaning the middle, or the space between, as well as *Meson* an adverb meaning in the middle, and p 629 forms of the word *Echo* I have or I hold, as in cachexia.

The word *Mesonexy* was used to mean the state of holding to the middle, keeping in the middle, maintaining or being in a condition of equilibrium avoiding extremes with reference to the Dissociation Curve of Haemoglobin. It has a wider application than that, being also referable to tendencies inseparable from human action.

Of some historic interest is the rapid progress to failure of the health of the late J. B. Murphy Surgeon as noted in the recent biographical tribute by Loyal Davis. On page 302 one observes "He has been taking large doses of baking soda, but nothing seems to relieve him."

The question of soda as an aggravating factor can be more easily answered now than then.

Yours very truly

J. K. LATCHFORD, M. D.

September 10, 1938

Doctor "The best thing you can do is to give up cigarettes liquor and women."

Patient "What's the next best thing?"—*Beauty Culture*

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

Dear Auxiliary Members

Now that the fall season has opened and you are getting ready for a busy autumn, I hope that the Auxiliary will be foremost in your minds. Talk "Auxiliary" to doctors' wives you meet especially if they are not members of an auxiliary. These are the women whom we have to interest in our work. If they are indifferent try to point out the many things the women in New York State have done these past three years. Be sure to tell them to read "The Woman's Auxiliary" page in the New York State Journal of Medicine" to see what organized counties have done and are doing. Reading the Journal regularly is a splendid way to keep in touch with other counties and gives one inspiration to want a bigger and better Auxiliary.

I attended the Sixteenth Annual Meeting of the Woman's Auxiliary to the American Medical Association in San Francisco from June 13 to 17. I was most delighted to meet women from all over the United States. It was impressive and inspiring to see the interest taken in Auxiliary work in other states. The National Auxiliary had the largest representation this year. More than 1,200 women registered at the convention. The meetings were very well attended. The membership now is 22,206, an increase of more than two thousand members since last year.

We may well be proud of New York State, as the report of Mrs. Francis Irving, our past President, was not surpassed by any submitted.

It was indeed a grand compliment to our State when Mrs. Lippincott, Chairman of the Public Relations Committee of the National Auxiliary praised Mrs. John Buettner in her report and named New York State as one of the three outstanding states in the work accomplished.

Our exhibit caused a great sensation, so much so that the newspapers took pictures

of it with some of the out-going officers. Mrs. Hirsch should be highly commended for this work.

Reluctantly, but with our best wishes I returned the membership trophy which was won this year by the State of Arkansas. Let us try and win it back next year.

I am sure that the officers and chairmen of standing and special committees of our State Auxiliary will pick up the work laid down for them, and each will go forth to do her part as an auxiliary member with inspiration and determination to carry on and extend the good work of the Woman's Auxiliary.

My very best wishes to you all.

MRS. DANIEL SWAN

Sept. 28, 1938

* * *

It was a great honor for our Auxiliary when Mrs. Augustus Kech, President of the National Auxiliary appointed Mrs. Swan not only to give the In Memoriam Service but also to serve on the nominating committee.

* * *

QUEENS COUNTY A meeting of the Executive Board of the Woman's Auxiliary to the Medical Society of the County of Queens was held at the Seminole Club, Forest Hills, September 13. Mrs. Henry Eichacker, Chairman of the Entertainment Committee, reported that final plans have been made for the Annual Fall Dinner Dance to be held at the Essex House, New York City on October 15.

The stated meeting of the Auxiliary was held at the Society Building, Forest Hills, September 27.

Following the meeting a collation was served. Mrs. E. W. McLave was in charge.

The members of the Woman's Auxiliary to the Medical Society of the County of Queens announce with deep regret the death of Mrs. William Sharkey.

Samuel B. Pray, attending physician at the New Rochelle Hospital and former president of the New Rochelle Hospital Medical Board, died on September 7 in

Glens Falls Hospital. Dr. Pray, who was sixty-five years old, suffered a stroke two weeks ago while at Lake George. Dr. Pray practiced in New Rochelle.

Public Health News

Public Health Notes

J ROSSLYN EARP, L.R.C.P., Dr.P.H
New York State Department of Health

The Worth of Diagnosis

One of the odd jobs that fall to the lot of a medical editor is the task of replying to citizens who have addressed the State Department of Health in search of medical advice. I am asked to recommend a climate for asthma or to pass judgment upon some particular "cure." I am asked what is the best thing to do for arthritis or to tell the writer all that I know about diseases of the heart.

What are the causes which mislead people into such faulty judgment of the worth of expert diagnosis? The subject deserves research because it is fundamental to so many problems of medical care to drug store prescription to the use and abuse of secret remedies, to the exploitation of testimonials, to the prosperity of healing cults and the neglect of scientific medicine. I do not pretend to know the answer but I can hazard some suggestions.

The citizen is accustomed to free diagnosis. When his automobile, his radio or his watch are disordered the technician makes no charge for determining the cause but only for applying the remedy. The technician is tempted, just as is the quack, to exaggerate the disorder and in any case is careful to repay himself one way or another for time expended. The citizen has become used to paying for treatment rather than for investigation.

It is true also that we ourselves underrate the value of investigation. That is why the specialist who is chiefly concerned

with the comparatively simple application of the latest remedy receives a pecuniary reward far in excess of the family doctor who has the really difficult task of deciding, whether there is anything seriously wrong, and if so what it is. Fee splitting is another evil that grows out of the undervaluation of diagnosis.

My third suggestion is that the method of popular health instruction may sometimes have been at fault. It is natural for the citizen who has learned about an infallible cure for arthritis to ask, How shall I recognize arthritis? It is natural for the educator to offer signposts to the principal 'diseases'. But the result is unfortunate. Given a single symptom most patients can easily imagine half a dozen more and fix upon themselves any particular syndrome about which they may happen to have read. I have a secret project to devise a new kind of home reference work which will give medical advice without describing a single disease. It will be a popular index of important symptoms. It will relate for each symptom a number of serious diseases any one of which that symptom may indicate. And the burthen of the text will be, Delay may be dangerous seek expert medical advice. There will also be a preface in which I should like to quote the words of Francis Bacon.

If a man will begin with certainties, he shall end in doubts, but if he will be content to begin with doubts, he shall end in certainties.

STATE MEDICAL SURVEY

County society secretaries of New York state discussed plans on September 13 for a survey of the medical facilities of the state with eleven groups agreeing to take part.

Secretaries from twenty-one other counties represented said they would co-operate after appropriate action was taken by their society officials at meetings scheduled within the next few weeks.

Dr O W H. Mitchell of Syracuse,

chairman of the survey committee, said the study will be made by the sampling method selecting typical sections with the object of determining the adequacy of existing facilities and focusing attention upon needs.

County societies agreeing to take part in the survey include Genesee, Madison, Oneida, Onondaga, Rensselaer, Rockland, Seneca, Steuben, Sullivan, Tioga, and Wyoming.

Medical News

Albany County

A DOCTOR-OWNED CORPORATION to underwrite physicians' and surgeons' fees and hospital bills for from \$1 to \$4 a month has been formed in the Capitol District

An affiliate of the National Casualty Company, the Physicians Hospitalization Service Inc., permits a subscriber to select his own physician or surgeon and any hospital in the United States or Canada—the company agreeing to pay specified amounts toward the resulting bills

The \$1-a-month plan allows twenty-one days in a hospital at \$3 a day plus \$2 50 a day toward the physician's bill plus operating room and anesthetist's charges and plus a total of \$75 toward the surgeon's bill

The more expensive plans make larger allowances toward bills resulting from illness. Plans for children cost approximately half the amount of adult plans

Cattaraugus County

"CARE OF PREMATURE INFANTS" was the subject of an institute presented by the Cattaraugus County Medical Society at St. Francis Hospital, in Olean, on September 9

The afternoon program was for public health and hospital nurses, while the evening session was for doctors of Cattaraugus county and vicinity

Speaker at both sessions was Dr B B Breese, of the Strong Memorial Hospital, Rochester

The greatest number of deaths among infants are caused by premature births, it was pointed out in a statistical report covering a five-year period and presented at a recent meeting of the County Medical Society

Chautauqua County

DR ROBERT BURTIS BLANCHARD, who had practiced medicine in Jamestown over thirty years, died on September 15, at the age of fifty-five. His father was also a prominent Jamestown physician, and a son is now a student in the University of Buffalo School of Medicine. Says the *Jamestown Post*

Dr Robert Burtis Blanchard, dead untimely at the age of 55, wore himself out in the service of others. A skilled physician and general practitioner, he was more than that. He was never too tired, never too indisposed, to respond to calls, and he gave prodigally of his time and physical and nervous energy to relieve the suffering. He was, to those who called for his services, both friend and physician

Chemung County

THE CHEMUNG COUNTY Medical Society has nominated as its president during the coming year Dr Rene Breguet, physician and psychiatrist at the Elmira Reformatory

Dr Breguet was nominated at a meeting on September 8 at the Arnot-Ogden Hospital. Election will take place in November

Other nominations: Vice-president, Dr George R. Murphy, secretary, Dr Robert J Lawlor, treasurer, Dr Swen L Larson, delegate to the State Society, Dr Elliot T Bush, present president of the Society, alternate delegate, Dr John F Lynch, delegate to the Sixth District branch, Dr Donald J Tillou, alternate delegate, Dr Floyd E Woodhouse, member of the Board of Censors of the County Society, Dr Alfred J Westlake, member of the Board of Trustees of the Society, Dr Charles F Abbott.

A STATEMENT COMMENDING the existing system of medical practice in America and warning against "communistic dangers inherent in state medicine" was issued on September 14 by a committee of the Chemung County Medical Society

At the same time it was announced that the society, in cooperation with the American Medical Association, has begun a county-wide survey to determine whether or not there is any group not now receiving adequate medical care

Dutchess County

THE DUTCHESS COUNTY Medical Society held its first regular meeting of the new year September 14, at the Amrita club, Dr Scott Lord Smith, president, in charge. The guest speaker was Dr Arthur J Geiger, assistant professor of medicine at Yale university. He gave an illustrated talk on "Practical Uses of the Electrocardiogram in the diagnosis and follow up of Coronary Thrombosis"

During the summer a group of doctors, representing informally all sections of the county and its hospital facilities, organized a county tumor clinic for diagnosis and treatment of cancer. The first session was held at Vassar hospital August 5 with weekly sessions thereafter on Friday afternoons. An administrative committee, serving for the first year, was composed of Drs C O Davison, A L Peckham, Samuel E Appel, A W Thomson, Julius Haight, Louis Stol-

ler, Scott Lord Smith, Helen L. Palliser and A. R. Moffit.

Erie County

THE PLAN OF THE MEDICAL SOCIETY of Erie county to provide relief clients in the city of Buffalo with individual medical care was discussed at a meeting of city and welfare officials in Hotel Touraine on September 14.

Following the meeting Dr Harry C. Guess president of the medical society, announced that the new feature of the plan, originally presented three years ago, was the request by Buffalo doctors for \$200,000 to carry out the system of medical attention. Under the proposed system, similar to that in operation in the county outside the city, doctors would receive \$2 for home calls and \$1 for office calls.

"This work in the county costs about \$80,000," Dr Guess said. "We now have estimated that the same work in the city would cost about three times that, or about \$200,000. The health committee of the Buffalo Council of Social Agencies will sponsor another discussion on the topic."

DR. RAY JOHNSON, seventy widely known Buffalo physician died on September 17 of a skull fracture suffered in a fall at the home of one of his patients. He had practiced in Buffalo forty years.

Herkimer County

DR. EMORY H. WOOD, who died on September 19 at the age of seventy-eight, was health officer of Salisbury Center from 1895 to 1937.

Kings County

A PLAN TO FACILITATE medical service for low income groups by providing for care in the patient's home and the doctor's office as well as in the hospital was announced by a group of Brooklyn physicians in the September *Bulletin* of the Medical Society of the County of Kings.

All physicians in the city and nearby New York counties would be asked to participate in the plan, which called for a non profit co-operative association, the title of which would be the Associated Medical Service of New York. It was expected to be in operation as soon as an amendment to the state insurance law permitting organization of such an association was passed.

The association would be similar to the three-cents-a-day hospital plan except that it would offer additional home and office care. Payments would be approximately four cents a day. Subscribers would be permitted

a free choice of physicians among those who joined the association.

Under the plan the physician's relationship to the patient would be about as it is in workmen's compensation cases. The association would be under the supervisory authority of the State Insurance Department and the Department of Social Welfare. Its affairs would be vested in an administrative board of five members which in turn, would be supported by a medical advisory committee council and a lay council.

The advisory council would have as its president Dr John B. D'Albora, Dr Fred Eric E. Elliott would be secretary treasurer.

Application for a certificate of incorporation has been drawn up and signed by Dr D'Albora, Dr Elliott, Dr John L. Bauer, Dr Irving Grav and Dr John J. Master-son who would constitute the administration board.

Monroe County

THE TWENTY FOURTH ANNUAL BIRTH DAY clambake for Dr Alvah P. Maine was celebrated by hundreds of friends at the First Presbyterian Church in Webster on September 22. The venerable physician was ninety two. He came to Webster in 1878.

New York County

THE DOCTORS HAVE STARTED a drive to get paid for the medical care they now provide free in the dispensaries and clinics in this city, it is announced in *New York Medical Week* official publication of the New York County Medical Society.

Figures on the amount of this free care reveal for the first time, that one third of the city's 7,363,000 men, women and children get such medical care gratis.

The total number of persons so treated is estimated at 2,372,866 in 1936 in the article by Dr Meyer Rosensohn a member of the society's committee on economics. The number for 1937 is believed to have been even greater.

At the private hospital clinics some of these patients paid twenty five cents for each visit but the doctors got none of it.

Treating hundreds of similar cases in a routine manner adds nothing to the doctor's experience. The porter, the clerk, the nurse and the supervisors in a dispensary are all paid Dr Rosensohn said.

"And yet the doctor," he declared "the keystone of the entire arch the essential without whom the dispensary is an absolute impossibility must be one whose altruism is paraded—if it is at all referred to—and exploited!"

The first move will be to call upon the

Budget Director the City Council and the Mayor to sanction substantial increases in the Department of Hospitals budget

Hospital Commissioner Goldwater said he is in favor of the proposal

"The major question is not the principle of the thing," he said "The real problem is where will we get the money?"

The Department of Hospitals in its 1938 budget provided for the payment of \$149,660 for clinic physicians

The department is paying 203 of its clinic doctors at that rate this year, but 1,630 serve without charge Each clinic doctor serves an average of three sessions a week Therefore, if all were paid, the Department of Hospital's budget would have to be raised by \$1,271,000 a year

Those now paid are in the venereal disease and tubercular clinics, and in some of the heavily attended clinics at Gouverneur Hospital The work is primarily routine drudgery for the doctors and adds nothing in the way of experience or prestige

Dr Rosensohn said the drive would be carried to the people through the press and the radio

DR FRANZ J A TOREK of New York City who died in Vienna on September 19 at the age of seventy-seven, was formerly president of the American Association for Thoracic Surgery

Niagara County

SOCIALIZED MEDICINE was the topic at the September 13 meeting of the Medical Society of the County of Niagara The principal speakers were Dr Richard H Sherwood, former president of the County Society and of the Eighth District Branch, and Dr Vincent D Leone, now president of the County Society

Oneida County

THE UTICA COMMON COUNCIL has decreed traffic regulations of the city shall not apply to physicians answering emergency calls The police will give an escort in emergency trips if the doctor desires it, says the Safety Commissioner

Onondaga County

SYRACUSE UNIVERSITY'S COLLEGE of Medicine was represented at the International Congress of Obstetricians at Rome, Italy, October 11, by Dr Raymond J Pieri, attending obstetrician at the Syracuse General and Syracuse Memorial Hospitals and member of the Medical School staff Dr Pieri was the only American physician on the program

TREATMENT OF BRIGHT'S disease, rheumatoid arthritis, high blood pressure and angina pectoris by a new "inductotherm" method of applying heat was described by Dr George W Stark before the 6,000 physicians attending the American Congress of Physical Therapy in Chicago on September 13 In his paper Dr Stark discussed the results obtained in treatment of patients at Syracuse Memorial Hospital

The "inductotherm" is an insulated coil carrying an unusually high frequency current This coil, applied to an affected part of the body, generates a magnetic field that sets up, within the body, a second electric current This inner current brings on the artificial fever, sometimes as high as 103°

Steuben County

DR GLENN L WHITING, who died on September 8, was a former president of the Steuben County Medical Society

Tioga County

FEW MEDICAL FAMILIES can match the record of Dr Hiram L Knapp, who has just celebrated the fiftieth anniversary of starting practice As told in the *Owego Times*, we read

Dr Knapp was graduated from the Buffalo Medical College in 1888 and soon afterward opened his office in Newark Valley Four of his forebears were doctors, the record of the family starting with Dr William Knapp, great-grandfather of Dr Knapp, who practiced in Bradford County, Pa., in the latter part of the 18th century William Knapp came of a family of 21 children and, according to tradition, 15 of these children became either doctors or dentists

Dr Hiram L Knapp, 1st, eldest son of Dr William Knapp, practiced medicine at Orwell, Pa., early in the 19th century He had a family of ten children and three of the sons and a daughter were physicians This daughter, Elizabeth, went to Oregon, when that State was first settled and practiced as a frontier physician

Dr Knapp's four sons are carrying on as professional men Two are physicians and two are dentists Dr Hiram L Knapp 4th, is a practicing physician at Newark Valley, Dr Paul C Knapp is a dentist at Fulton, Dr Robert G Knapp is practicing dentistry in Utica, and Dr Lester S Knapp is practicing medicine in Buffalo Hiram L Knapp, 5th, is a student at the Buffalo Medical College

Westchester County

DR EDWARD M CLARK, oldest physician in Mamaroneck and for thirty years village health officer, died on September 10 at his home, after a long illness He was 76

Hospital News

Our Hospitals Amaze a French Nurse

THE OUTSTANDING IMPRESSION received by a French nurse who spent six months here studying our hospitals was "the lavish generosity that has made all the marvelous equipment possible that I see in the hospitals—that and the organization in the hospitals." In America, she declared, "there is everything in the world to get the patient well and to train the nurse in the latest techniques from all countries. To the visitor it seems that no one has any excuse for not being well or if they fall ill they have every chance in the world for a speedy recovery."

This keen observer was Mlle. Marianne Gaillard of the Florence Nightingale Memorial School of Nursing in Bordeaux whose trip here was part of her preparation for the post of assistant director of her school which she has now returned to take. A fund provided by American nurses financed the trip and the Bordeaux school was reestablished in 1921 as a memorial to the American nurses who were killed in the World War. The school existed previously and its hospital dates back to 1863.

"Production of Health" here a "Leading Industry"

Comparing French and American hospitals Mlle. Gaillard said as she is quoted in the *New York Sun*

"What we have to a limited extent and in comparatively few hospitals you have here as a matter of course in every hospital and in unlimited quantities. The production of health for the sick, rich or poor, must surely rank as a leading industry."

Teaching health habits to patients leaving the hospital to go home as well as health education is another phase of American nursing for which she expressed a lively admiration.

"I hear nurses telling a patient what to eat and what to do and simple things that he can do at home to keep well. We have nothing like that in France any more than we have your follow up nurses who go directly into the home to help the patient readjust himself to his home environment and give advice to his whole family. Our Florence Nightingale school gives a splendid public health course, however and our students do visiting nursing in homes as part of their regular studies."

Mlle. Gaillard said she longed for the power of a fairy godmother to take public health service back to every hamlet in France. "What it would mean to our younger generation alone I can hardly bear to visualize," she said.

Another phase of American nursing that caught the visitor's attention is the importance given to the patient and how it is stressed to the nurse in training. She referred to the appetizing preparation of the bedside tray the color contrast in food to tempt the palate and the promotion of his or her peace of mind. In France she said the nursing approach is largely confined to the cure, not to the individual. Referring to the books on nursing available as preparation for nursing she said she was overwhelmed by the wealth of material published in every specialized field, adding that the supply of such books in France is so meager that part of the memorial funds from the American nurses has been used for the publication of a two-volume text book in French.

Training in France

When asked if nursing in France was not still largely in the hands of sisters of religious orders Mlle. Gaillard smilingly shook her head. "That is a question I encounter everywhere," she said "whether professionally trained nurses as you know them here are not still relatively few in France. As a matter of fact my own school of nursing is not so far from its fortieth birthday having trained and graduated young women as professional nurses since 1901.

There are many religious sisters who nurse and to whom we owe an immeasurable debt, but the majority of our nurses are trained women who have adopted nursing both as a profession and as a livelihood."

Legal Requirements

Americans invariably express surprise that professional nursing in France is already under the control of the law moreover a law more strict in its requirements than the nursing laws of most of the States here, the visitor continued. In Switzerland as well as France the law prohibits any one nursing for hire without a State diploma. This means the applicant not only must submit proof of graduation from a two-year course in nursing but must pass a State examination. If any nurse attempts to practice without it, the law will step in and stop her.

This law is very similar to the one that New York State succeeded after years of effort in

writing on the statute books only recently. This is the new Nurse Practice act drafted and sponsored by the New York State Nurses Association. Mlle. Gaillard said that she was sur-

pised to learn that prior to its enactment there were few health safeguards for the public in this State comparable to their own law that any one could nurse for hire.

Newsy Notes

TO TRAIN SPECIALISTS

BUFFALO CITY HOSPITAL has embarked upon a new and ambitious program in the field of medical education, the preparation of candidates for diplomas in the dozen fields of specialization recognized by the American Medical Association.

In collaboration with its educational ally, the school of medicine of the University of Buffalo, City Hospital, beginning this autumn, will offer to all qualified doctors of medicine in Buffalo its services in preparing for the diploma awarded in one or the other of the special fields.

The new educational program is already in effect at the hospital. During the summer months, members of the hospital staff who seek to qualify for the specialists' diploma have been attending courses in the basic sciences (anatomy, physiology and biochemistry) as applied in one or another of the specialties.

But beginning in November, when the U. B. Medical School takes up its part of the work, lectures and demonstrations in these basic sciences, given by professors of the school, will be open to members of the staffs of other hospitals, and to private practitioners who seek the diploma.

Dr. Carroll J. Roberts, clinical director of City Hospital, described the program as one of "pioneering."

"So far as we can find out," he remarked, "no other hospital in the United States has embarked upon a complete course, in all the twelve branches in which diplomas are offered. A hospital in Chicago has made a start, but we are already under way."

"It seems to me that we are rendering a public service. To those who want this diploma, it is an opportunity for preparation that is offered nowhere else."

NEW RADIUM METHOD

A NEW METHOD of applying radium emanation inside the body had been developed at the New York City Cancer Institute, the Department of Hospitals announces, by Dr. Fred Hames and his associates. It consists

of placing seeds containing the emanation within a silk suture, which is then sewed in place. Previously, the practice has been to place the seeds individually, a laborious process. They can be spaced, in the new method, outside the body, and placed just where the physician desires them to be in a single operation instead of in several.

The suture can be sterilized after the seeds have been put in it, and so the method can be used on any part of the body. There is a special process for use in the stomach, in which sutures are attached to a balloon, which is passed, deflated, into the stomach, and then inflated, pressing the seeds against the points to be treated.

Among the advantages claimed for the method is the fact that it can be used at a distance from large hospitals, because of its simplicity compared with the old way.

WELDING RAT-TAT IS HUSHED

THE USUAL NOISE ASSOCIATED with the building of as large a structure as the new wing being added to Ellis Hospital in Schenectady is noticeably absent because building is being constructed by the use of the latest type of silent electric arc-welding equipment. Since absolute quiet is essential this type of equipment was selected for use in the building.

The central part of the framework is near completion and despite division of the present hospital into two sections, the efficiency of the institution has not been impaired, according to Miss Mary G. McPherson, administrator of the hospital.

"By the use of the electric welding process in linking the framework together, patients have not been inconvenienced or disturbed while the building is going on," she said. "The present facilities have been broken into two separate units, each functioning independently of the other, with the result that service to the patients has actually increased."

ONE-THIRD OF ALL THE service given by the Nyack Hospital in 1937 was free.

THE SOUTHAMPTON HOSPITAL, which serves a fifty mile radius, is beginning a drive for \$15,000, to make up a deficit caused by the great increase in free service given last year.

NORWICH HOUSEWIVES are invited to 'fill a jar' when canning, for the Chenango Memorial Hospital.

Members of the Board of Women Mana-

gers announce that they have received a gift of a quantity of jars. Friends of the hospital who are willing to fill these jars are invited to cooperate and their donations will be gratefully appreciated.

FLUSHING HOSPITAL has inaugurated a Social Service Department, under the sponsorship of the Green Twigs Society of Flushing.

Improvements

THE WORKS PROGRESS ADMINISTRATION for New York City will soon start the renovation of three buildings at Lincoln Hospital, E. 141st St. and Concord Ave., according to an announcement by Lt. Col. Somervell, local WPA administrator. The pathological, admitting and staff buildings are to be modernized. The cost is estimated at \$350,000, of which the City is expected to contribute \$150,000. Approximately 400 men will be employed for about eight months.

BUILDING PLANS FOR A NEW \$1,675,000 psychiatric pavilion as an addition to the Kings County Hospital group have been filed in the Brooklyn office of the Department of Housing and Buildings. The pavilion will be a double "Y" shaped building seven stories in height. It will accommodate 350 patients.

CONTRACTS ARE BEING AWARDED for a five-story nurses' home and a new four story hospital wing and solarium as additions to the Beth Abraham Home for Incurables at Bronx Park South. Allerton and Barker avenues, the Bronx.

THE PUBLIC WORKS ADMINISTRATION authorized a Federal grant of \$1,491,750 to help build a new eight story administration building for Bellevue Hospital. The total cost will be \$3,315,000, with the city supplying the balance.

CONSTRUCTION OF TWO WINGS on the Marine Hospital Clifton, Staten Island, expected to be started within the next few months as the result of a \$1,116,000 PWA allotment is only a part of a contemplated

\$2,850,000 building program for the institution according to Dr. S. L. Christian, Public Health Service assistant surgeon general.

The \$2,850,000 construction program will eventually provide the Clifton hospital with a capacity of 1,300 beds, Dr. Christian said. The two wings to the main building will provide 300 more beds and will bring the facilities to a total of 1,600 beds. Additional office space also will be available.

A CAMPAIGN IS ON to raise \$40,000 for alterations and additions to the Eastern Long Island Hospital in Greenport.

THE PWA HAS APPROVED a grant of \$912,270 for new buildings, additions and improvements at Central Islip State Hospital, Central Islip, Long Island, at an estimated cost of \$2,027,270.

Col. M. E. Gilmore, regional PWA director for Long Island, stated that the grant would help finance the construction of ten one story buildings for patients, and a two-story maintenance building.

When improvements are completed it is expected that most tubercular insane patients, now distributed among several institutions in New York State, will be housed at Central Islip.

ADDED IMPETUS HAS BEEN given the drive to establish a Veterans' Hospital in Queens by the formation of a committee headed by Queens Borough President George U. Harvey as Honorary Chairman and Samuel E. Giudici of Forest Hills as Chairman.

GROUND WAS BROKEN on July 28 for the six story addition to the New Rochelle Hospital. Fully completed and equipped, it will cost around \$550,000.

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Medicolegal

LORENZ J BROSNAN ESQ

Counsel Medical Society of the State of New York

Illegal Practice of Medicine by a Chiropractor

It may afford some sense of gratification to the members of the medical profession to know that in some of the States in which chiropractors have been licensed by law steps are being taken to confine them to a narrow field of work. One such case during the past few months was passed upon by the highest Court of one of the Southern States*.

In that jurisdiction the statute defining the practice of medicine was as follows: "The practice of medicine shall mean to suggest, recommend, prescribe, or direct for the use of any person, any drug, medicine, appliance or other agency, whether material or not material for the cure, relief or palliation of any ailment or disease of the mind or body after having received, or with the intent of receiving therefor any compensation."

One, J, who had been duly licensed to engage in the practice of chiropractics under the laws of the State, was indicted under charges that he had unlawfully practiced medicine in that he had treated by the application of medicine and attempted to remove by operation with instruments the tonsils of one W for a fee.

Upon the trial it appeared that J had examined the tonsils of W and had found them containing pus. He advised their removal. He thereupon treated the mouth with a liquid which had a numbing or deadening effect upon the walls of the mouth and tongue, informing the patient that the liquid was an anesthetic. J then inserted into the tonsil a pronged needle and applied electric current as a means of removing them. He charged a fee of \$35.00 for a series of treatments administered in such manner.

The chiropractor testified that the liquid was not a medicine or anesthetic, but was a preparation known as "Nature's Aid" put out by another individual who labelled it as a natural nonpoisonous germicidal antiseptic, good for indigestion, ptomaine poison, cuts, and the like. The patient tasted a sample of "Nature's Aid" produced in court and asserted that it differed from the substance used by the chiropractor. J how-

ever did not deny using the pronged needle in applying electric current to the tonsils.

The jury found the defendant guilty as charged and from the judgment of conviction, he appealed to the highest Court in the State contending that no violation of law had been established against him.

The Appellate Court, however, affirmed the judgment of the Trial Court saying in the opinion:

We find that chiropractic is defined in the New Century Dictionary as a "system of healing which treats disease by manipulation of the spinal column." The term "chiro" is derived from the Greek word meaning hand, and the term "practic" from the Greek word meaning practical science or in other words, the practice of a science by hand. Surgery is defined in the law dictionaries as being limited to manual operations usually performed by surgical instruments or appliances as distinguished from the practice of medicine which includes the use of medicine and drugs for the purpose of either curing, mitigating or alleviating bodily diseases. A physician is defined in the standard dictionaries as one legally qualified and engaged in the general practice of medicine as distinguished from one likewise skilled in the art of healing who specializes in surgery that is to say surgeons are also physicians and physicians may practice surgery. But the treatment of disease by the use of surgical instruments and other appliances, as distinguished from treatment by hand, as well as the use of medicine or drugs (except where permission is granted to dentists to use an anesthesia) and treatment by means of electricity known as electrotherapy, are methods commonly adopted by physicians and surgeons as taught in their institutions, established by their highest authorities in the field of surgical and medical science, and by general acceptance regarded as pertaining peculiarly to these professions.

Electrotherapy is defined in medical jurisprudence as the use of different forms of electric machines for therapeutic purposes and before an electrotherapeutist can follow his profession he must obtain at least in some states a license authorizing him to practice in that particular field. This practice has not been recognized in our state as a distinct science separate and apart from the field of medicine or surgery and, since the use of electrical appliances for the treatment of diseases is ordinarily regarded as pertaining to these particular fields, it is not lawful to engage in the practice of these methods without being licensed as a physician and surgeon.

*Joyner v. State 179 So. 573

AGITATION FOR A MUNICIPAL hospital in the East Bronx is being pushed by the new East Bronx Hospital Committee.

THE EASTERN LONG ISLAND Hospital, at Greenport, has engaged architects to plan a two-story brick wing to cost \$45,000 and raise the hospital's accommodations from twenty-eight beds to forty

DR SCOTT LORD SMITH, President of the Dutchess County Medical Society, has started a movement for the construction of a communicable diseases hospital, to be operated in conjunction with Vassar Hospital at Poughkeepsie, and to cost around \$100,000. Local papers suggest financing it from state liquor tax refunds, together with a PWA grant.

A NEW NURSES' HOME at the Northern Dutchess Health Center at Rhinebeck is contemplated

A NEW HOSPITAL FOR Massena is being discussed by the town board and local physicians

PLANS ARE COMPLETED for the new \$500,000 Pawling Sanitarium at Troy. The building will be of brick and limestone and will contain space for 128 beds. Solariums will be provided.

THE WEST WING OF THE Auburn City Hospital is being modernized at a cost of some \$25,000

THE TAXPAYERS OF ROME voted three to one in July to build an entirely new city hospital. An institution of 110 to 115 beds is contemplated, to cost around \$400,000

AFTER WEIGHING VARIOUS larger and smaller plans, Binghamton authorities have endorsed a 120-room, \$450,000 addition to the City Hospital, to be financed in part by PWA funds

ENLARGEMENT OF THE U S Veterans Hospital in Batavia is expected. Veterans organizations are urging the addition of room for 300 more beds

THE APPLICATION OF THE city of Lockport for federal funds to replace the old central section of the city hospital with a modern, four-story fireproof section similar to the new East wing nearing completion and the fireproof West wing completed a few years ago, has been approved and \$40,500 allocated by the Public Works administration, representing forty-five per cent of the total cost.

A \$1,200,000 CITY HOSPITAL construction program, to be carried out as a Public Works administration project, has been recommended to the Buffalo Common Council in a communication from Dr. Walter S. Goodale, hospital superintendent. The program includes

1 A \$500,000 building for treatment of psychiatric patients

2 A \$500,000 addition to the day school for crippled children

3 A \$150,000 service building to house the garage, laundry and occupational therapy shops

4 \$50,000 for three cottages for the reception and care of pediatric cases

THE \$120,000 BUILDING PROJECT of the Memorial Hospital at Ithaca has been approved by PWA authorities, and a Federal grant of \$56,000 is made available. A new maternity ward and enlarged operating room are planned

At the Helm

THESE HOSPITAL OFFICIALS HAVE BEEN CHOSEN

Dr. Reid R. Heffner, to be clinical director of Grasslands Hospital, Eastview

Ernest R. Carlsson, to be president of Huntington Hospital, at Huntington, L. I.

Congressman Bertrand H. Snell to be president of the directors of the A. Barton Hepburn Hospital, at Ogdensburg

John G. Barry, to be chairman of the managers of Ellis Hospital, at Schenectady, reelected, and Chester H. Lang, to be president

A. C. Saunders, to be president of the Nathan Littauer Hospital Association, at Gloversville

Miss Dorothy Dotterweich, to be superintendent of the Jamestown Hospital

Across the Desk

Medical Practice in Germany

IT IS ONLY WITHIN THE LAST few years that German doctors have been taken out of the status of tradesmen along with carpenters, blacksmiths, and plumbers, and given a position among the professions. The tinker mending drain pipes and the physician treating the "pipes" of a victim of the law were in the same category in the eye of the law down to as late as 1885. So we learn from an interesting series of articles in *The British Medical Journal* written by Dr. Karl Haedenkamp, of Berlin. True, in 1885, the doctors were permitted to set up voluntary associations in the various German states, and so emerged into a professional status in a sort of loose and unsatisfactory way, but before the law of the Reich, they were merely humble tradesmen until 1933.

That year marked a turning point in German national and political life. An entirely new political system sprang into being. "Parliamentary institutions, at any rate as they have been known hitherto, have ceased to exist in Germany." Dr. Haedenkamp tells us. And this transformation revolutionized the medical bodies along with all the rest, and the doctors have a medical Führer, just as the nation has Herr Hitler. For such is the Nazi political philosophy. Power flows down from above, instead of rising from below, as in democratic lands.

The Question of Individual Freedom

Anybody who reads the daily papers knows that nothing but scorn, in fact, is heaped upon the democracies in the impassioned speeches of the leaders at Berlin and Rome, who seem to regard our kind of government as a sort of political hash or stew, capable only of blunders and ineptitude.

We may smile at the cast iron regulations of Naziland, but in reply they point the finger at political irregularities under the more popular governments, and who can say that the laugh is all on one side? To return to Dr. Haedenkamp, he admits frankly that "a German doctor probably has less indi-

vidual freedom than his professional brethren abroad," but he claims that "the medical profession, as a whole, however, has more freedom, independence, responsibility, and autonomy in Germany than in any other country. At any rate that is the opinion of its members," and moreover this development has been desired by German medical practitioners themselves for some time." The German, we may say, believes in organization, leadership, guidance, while your true born American would like to see anybody try to run his affairs for him. That is the spirit of '76," still running strong.

A Medical Führer too

The German medical Führer is appointed by the national Führer, Herr Hitler, and is the head of the German Medical Chamber, or *Reichsärztekammer*, which rules and regulates the profession. Thus in one sense the profession is under government control, but in another, is ruled by its own medical chamber and hence has the freedom and independence claimed for it above. The doctors have been given a sort of great code or Magna Charta which expressly states that medical practice is not a trade and provides that the physicians are charged with a duty to the public health. The state can exercise authority over them, "but it cannot give them definite orders like officials or employees." It can act only through the Medical Chamber, which of course understands perfectly the peculiar conditions and requirements of the physician. Here then, we have control but at the same time a sympathetic understanding and a medical aim and outlook.

Unqualified persons are still allowed to practice medicine in Germany, under certain restrictions by an age-old custom, but no one may use the title "doctor" unless fully qualified. The doctor must not only complete the approved medical curriculum, pass the examinations, and serve one year in a hospital—he must also have full rights of citizenship, an acceptable political and moral attitude, no record of crime or serious medical dereliction and no incapacitating

Appellant was authorized to practice chiropractics under his license issued to him by this State, but not to engage in the use of any methods pertaining to the practice of medicine and surgery

Failure To Diagnose Tuberculosis

A general surgeon was requested to examine a woman who was in her middle twenties, with respect to her physical condition. He obtained a history that she had had a persistent cough for some years and had on occasions spit up quantities of blood. The physician did not specialize in tuberculosis but gave her a physical examination. He did not make a sputum test but referred her to an x-ray specialist, who took an x-ray picture of her lungs and reported that there was no evidence of tuberculosis. The report apparently was erroneous as the pictures, when later examined, indicated evidence of tuberculosis.

The doctor informed the patient of the contents of the report and advised her to consult a nose and throat man, as he thought there might be some condition of the nose and throat which would be revealed by such consultation. A year after the incident the doctor again learned from the mother of the patient that she was still suffering from a cough, but had not gone to the other physician who was recommended. At that time the patient actually went to a nose and throat specialist who recommended a further x-ray examination of her lungs. Such examination showed an advanced case of tuberculosis. The patient was promptly hospitalized and her lung collapsed. She underwent three operations and spent a long period of time recuperating.

An action was brought against the physician by the patient, charging him with having been guilty of malpractice and failing to diagnose her true condition. The case came on for trial before the court and a jury and the facts were shown to be substantially as above outlined. It was the contention of the defendant that he was entitled to rely upon the x-ray report which had been furnished to him by a competent roentgenologist. The issues in the case were submitted to the jury and a verdict was returned in favor of the defendant, thereby exonerating him of the charges of malpractice which had been made against him.

Death from Cancer Following Injury to Knee

A physician engaged in general practice was called to attend a seventeen year old boy who was complaining of pain in his right knee. The doctor was informed that the patient had been struck with a hockey stick three times on the same knee. The doctor found the knee swollen, some limitation of motion, and that the patient was walking with a limp. A diagnosis of prepatellar bursitis was made and the knee was strapped.

About a week later the doctor again saw him and re strapped the knee and on the third visit, another week later, finding the patient somewhat improved he applied a plaster-of-Paris cast from the toes to the hip. The cast was permitted to remain on the leg two weeks and when removed the doctor found that the knee condition had not improved so ordered x-rays. The report of the roentgenologist indicated an osteogenic sarcoma of the periosteal tissues. A consultation was held and the diagnosis was confirmed. Thereafter the parents took the boy to another physician and he never returned to the first physician for treatment.

It was later ascertained that within a relatively short time thereafter the leg was amputated between the junction of the middle and upper third of the femur. He was kept under care to prevent, if possible, metastasis of the carcinoma but in about six months after the amputation the condition manifested itself, principally in the abdomen. Although x-ray therapy was employed in an attempt to check the condition, in another period of a few months the patient died.

A malpractice action was instituted against the first physician who cared for the youth, charging that the defendant was responsible for the boy's death in that he failed to promptly diagnose the true condition of the boy in time for a cure to be brought about. When the case was about to be reached for trial counsel for the defendant finally succeeded in convincing the attorney for the plaintiff that the boy's death had been inevitable and that there was no merit to the cause of action against the defendant.

DISTRICT BRANCH MEETINGS

- FIRST—New York (New York Hospital) November 17
- SECOND—Garden City November 16

Despite previously published dates in this JOURNAL, these given here are correct

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vidual freedom than his professional brethren abroad but he claims that 'the medical profession, as a whole, however has more freedom, independence responsibility and autonomy in Germany than in any other country. At any rate that is the opinion of its members,' and 'moreover, this development has been desired by German medical practitioners themselves for some time.' The German we may say, believes in organization leadership, guidance, while your true-born American would like to see anybody try to run his affairs for him. That is the spirit of '76 still running strong.

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physical or mental defect. All members of the profession are bound to put their services at the disposal of the nation for the maintenance and improvement of the health and racial vigor of the German people, and the Chamber may make special regulations to carry out this purpose. Any who violate the regulations may be punished by warning, reprimand, fine, exclusion from certain kinds of practice, or withdrawal of diploma and exclusion from practice.

The Nation Put Above the Individual

It was not quite a year ago that a detailed body of regulations was issued by the Chamber, giving the German doctors a complete code of ethical conventions, many of them touching closely the everyday problems of their professional life. It was "what they have badly wanted for a long time," we are informed. This ordinance of November 13, 1937, is binding on all doctors with the force of a statute. One section relates to professional secrecy. The "medical secret" is inviolate ordinarily, but the doctor is released from secrecy if there is a legal or moral duty to divulge it. "The interest of the community, the common weal, is paramount," and secrecy "must not be stretched to a point at which the interests of the community, the people, or the state are endangered."

Similarly putting the whole people above the individual, the German doctor must "play his part in furthering the healthy procreation of the German race, and must oppose all attempts to limit either its quality or quantity." He must "actively support all state measures for increasing the numbers and racial purity of the population," and "may terminate pregnancy only when the life of mother or child is threatened, and then only with the previous consent of one of the special medical tribunals which are set up for this purpose." Sterilization, too, is strictly regulated. Special tribunals of lawyers and doctors must pass on each case. The German doctor also may not prescribe contraceptives except on very good grounds.

Everything is Regulated

Every German doctor is obliged to take a course of postgraduate study at least once every five years, and the medical chamber has organized special courses all over the

country to meet the need. Separate classes are held for doctors from rural districts, small towns, and cities, and for specialists. The doctor must not have more than one office, except by consent of the chamber, and general practitioners, gynecologists and surgeons must practice and live at the same address. Treatment by correspondence or at a distance is forbidden. He may write for a medical column in the press or for a "doctor book" only by special permission of the chamber. Permission is also necessary for the employment of an assistant, and partnership is not permitted, for the medical "firm," we are told, is frowned on in Germany as tending to "depersonalize" medical practice. Advertising of all kinds is of course forbidden.

Welfare centers play an important part in the public health of Germany. They are numerous, and deal with all classes of diseases. There are centers for tuberculosis, venereal disease, rheumatism, cardiac disease, diabetes, nervous disorders, drug addiction, alcoholism, orthopedic conditions, and maternal and child welfare. Some are run by local authorities, some by insurance societies, and some by provincial health departments. The chamber forbids a "welfare doctor" to give treatment, he may only examine and advise, and not come between the patient and the family doctor.

Specialism Overdone

Specialism has been carried so far in Germany that out of 55,259 doctors in 1937, 15,680 were specialists, or 28.4 per cent. This is thought to be carrying it too far, and specialism is being hedged with numerous restrictions. It is believed better policy to have as many well-trained general practitioners as possible, and to give them wider instruction. There is a strong movement back toward a grasp of medical knowledge as a whole, or at any rate of those departments of it which are necessary and useful. It is provided that the patient must consult his family doctor first, and take his advice on whether a specialist shall be called in, and, if so, of what specialty.

Room is lacking for further details of medical practice under the Nazi regime, but perhaps enough have been given to show that every nation must work out its problems, medical, social, and political, to suit its own national and racial temper and spirit.

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Diseases of Women. By Ten Teachers under the Direction of Clifford White, M.D. Edited by Sir Comyns Berkeley, Clifford White and Frank Cook. Sixth edition. Octavo of 492 pages illustrated. Baltimore, William Wood and Company, 1938. Cloth \$6.00.

Emergency Surgery. By Hamilton Bailey, F.R.C.S. Third edition. Octavo of 852 pages, illustrated. Baltimore, William Wood and Company 1938. Cloth, \$14.00.

Food and Physical Fitness. By E. W. H. Cruickshank, M.D. Duodecimo of 148 pages. Baltimore, William Wood and Company, 1938. Cloth, \$2.00.

The Single Woman and Her Emotional Problems. By Laura Hutton, M.R.C.S. Second edition. 16mo of 173 pages. Baltimore, William Wood and Company 1937. Cloth, \$1.50.

Practical Otolaryngology and Laryngology. By Adam E. Schlanser, M.D. Octavo of 315 pages, illustrated. Philadelphia Lea & Febiger 1938. Cloth, \$4.50.

Medical State Board Questions and Answers. By R. Max Goepfert, M.D. Seventh edition. Octavo of 644 pages. Philadelphia W. B. Saunders Company 1938. Cloth \$5.50.

REVIEWED

Practical Neuroanatomy. A Textbook and Guide for the Study of the Form and Structure of the Nervous System. By J. H. Globus, M.D. Quarto of 387 pages illustrated. Baltimore, William Wood & Company, 1937. Cloth, \$6.00.

This volume is not merely another addition to the large number of books dealing with neuroanatomy. It has been well labeled *Practical Neuroanatomy* but it could easily have been called, "Neuroanatomy Simplified" for in the simple direct method of presentation adopted, all the mystery associated with the anatomy of the nervous system has been dispelled.

The author is simple, direct, and dogmatic. The student is provided with firmly imbedded pegs on which to hang new information. The text is written in a clear and easily readable style. Ninety-two descriptive figures adorn the text although they simply reinforce clear easily understandable descriptive matter.

The book is divided into three sections. Part I deals essentially with pure anatomic structural considerations. The whole is considered along the lines of a laboratory manual which leads the student easily from one development to another.

Part II entitled "Résumés and Discussions" deals with the form, function and integration of the several divisions of the nervous system. The reviewer frankly likes the separation of consideration of form and function into two distinct parts while at the same time the necessary relationship is stressed.

Part III contains a series of fifty-one plates to be filled in by the student. These

plates can be removed for study and pasted in for permanent keeping. The value of Part III depends on the individual student. It should prove effective and particularly be of value in schools where the construction of models of the central nervous system has not been introduced into the teaching program.

The volume deserves a good reception.

HAROLD R. MERWARTH

Surgical Pathology of the Diseases of the Neck. By Arthur E. Hertzler, M.D. Octavo of 237 pages illustrated. Philadelphia J. B. Lippincott Company 1937. Cloth \$5.00.

The present monograph is the most recent of a series on pathology by this well known surgeon and pathologist. The book comprises ten chapters and treats of the surgical pathology of a large series of lesions occurring in the neck. The monograph is largely a clinical and operating room study. Emphasis is placed upon the early and progressive appearance of the disease. Abundant photographs are presented which show the appearance of the lesion in the patient, in the excised lesion or tumor and in the microscopic section. With the knowledge of the life history of the pathological lesion and its gross appearance at operation, the author feels a diagnosis or at least a presumptive diagnosis should be possible and then the microscopic appearance is usually confirmatory. The subject matter includes Hodgkins Granuloma, Lymphosarcoma, Lympho-Epitheliomas, Endotheliomas of the Lymph Glands, Rare Primary Tumors of the Neck, Diseases of Vestigial Rests, Benign Tumors of the Neck, Diseases of

the Salivary Glands, Secondary Tumors of the Neck, Inflammatory Affections of the Neck. The illustrations are well selected, clear and are most helpful in gaining an accurate knowledge of the diseases considered. The book is highly recommended to the surgical pathologist and to the general surgeon, particularly those operating on conditions of the neck. The book has the distinct value that the material is personally considered and is the result of the author's own experiences.

EMIL GOETSCH

Organization, Strategy and Tactics of the Army Medical Services in War By T. B. Nicholls, M. B. Octavo of 372 pages. Baltimore, William Wood and Company, 1937. Cloth, \$4.00.

Using his own experiences with army regulations during the World War the author has compiled into one volume the most useful of these rules and regulations. The volume is divided into four parts: the first on general organization and administration, the second on the constitution and organization of medical units, the third on strategy and tactics, the fourth on problems and exercises. Each part is most instructive and useful. Much work has been necessary to bring together all the necessary elements, and the author has succeeded in presenting clearly the salient facts necessary for a medical officer in the British Army. For those interested in what may happen during the next few years, this volume will be most interesting and instructive.

HENRY M. MOSES

Digestive Tract Pain: Diagnosis and Treatment. Experimental Observations By Chester M. Jones, M.D. Octavo of 152 pages. New York, The Macmillan Company, 1938. Cloth, \$2.50.

In this monograph the author confirms by experimental means what the clinician has observed for many years. He inserts a balloon which is inflated throughout the various regions of the digestive tract, and observes the pain reflexes in health and disease. The observations are checked up by x-ray, operative, and postmortem findings.

This interesting little volume can be read with benefit in less than two hours, and demonstrates simple experiment in clinical medicine.

HENRY JOACHIM

Nutrition of the Infant and Child By Julian D. Boyd, M.D. Edited by Morris Fishbein, M.D. (National Medical Monographs) Duodecimo of 198 pages, illustrated. New York, National Medical Book Co., Inc., 1937. Cloth, \$3.00.

It is a very readable little book. In it are concentrated the up-to-date ideas of nutrition, especially as it pertains to growing individuals. Not only are normal elements of the diet discussed, with methods of preparing well illustrated but the last chapter is devoted to therapeutic dietetics. Tables are appended to aid in formulating diets during acute illness, there are others for the obese child, for celiac disease and for producing ketosis. The last few pages are devoted to diabetic formulae.

It is not a book for the pediatricist, but as a reference work for the general practitioner it will serve its purpose.

THURMAN B. GIVAN

The Diagnosis and Treatment of Diseases of the Blood By Thomas Ordway, M.D. and L. Whittington Gorham, M.D. Octavo of 605 pages, illustrated. New York, Oxford University Press, 1938. Cloth.

This edition represents a revision by Isaacs of Ordway and Gorham's contribution to *Oxford Monographs on Diagnosis and Treatment* of which it is a reprint. All of the good features of the 1930 edition have been retained, and the important contributions of intervening years are evaluated and included. Many of these advances have been made by Isaacs and his colleagues at the University of Michigan, and these have been mentioned with unusual modesty. A hitherto unpublished note on the treatment of hemolytic jaundice with liver extract is included.

The monograph, undoubtedly designed for the general practitioner, makes no pretence to be encyclopedic. Detailed pathological considerations are omitted. Technical details might profitably have been included for the benefit of the very persons that the book is meant to reach. There are thirteen excellent color plates but, in this respect, the volume cannot match recently published atlases. The style is clear but undistinguished. On the whole, this monograph may be recommended to those who wish an authoritative but not too detailed survey of hematological diseases.

MILTON PLOTZ

ORDERING BOOKS

As a service to our readers, books listed in this issue or any other medical book in print may be ordered through T. H. McKenna, Inc., 878 Lexington Avenue, New York City. Phone BUtterfield 8-6603.

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TYPE I PNEUMOCOCCUS PNEUMONIA

Observations from Study of Two Thousand Cases Treated With Specific Serum

EDWARD S. ROGERS M.D. and MARJORIE E. GOOCH S.C.D. *Albany*
From the Bureau of Pneumonia Control of the New York State Department of Health

During the period of twenty-five months, from January 1, 1936 through January 31, 1938, 2,293 cases of type I pneumococcus pneumonia are known to have occurred in New York State exclusive of New York City. The present report deals with a preliminary study of this group of cases with particular reference to the specific serum treatment of 2,027 of them*. The latter records represent the combined experience of 877 cooperating physicians and 109 cooperating hospitals.

The data presented will be considered in three groups with reference to

I. Factors influencing the course of pneumonia over which the physician has no direct or indirect means of control.

II. Factors over which the physician may exercise, or might reasonably be expected to exercise some means of direct or indirect control.

III. Certain miscellaneous observations which do not fall into either of the first two groups.

I. Uncontrollable Factors Influencing the Outcome of Pneumonia

Age As shown in Table I and

*Concentrated type I antipneumococcus horse serum prepared and distributed by the Division of Laboratories and Research, New York State Department of Health, as a part of the Pneumonia Control Program.¹

Chart I the case fatality rate in both the serum treated and untreated cases increases in direct proportion to the age of the patient, whether the ages are divided into three large groups or into decades.

In the distribution of serum no restrictions have been made with respect to the age of the person to be treated. However, the prevalent conservative feeling of the medical profession with respect to serum treatment at either of the extremes in life particularly in childhood may very well have been reflected in this recorded experience.

Of 2,015 type I serum treated cases in which age is known sixty-eight per cent are in the age group ten to forty-nine years, whereas for all forms of pneumonia in New York State whether serum treated or not only thirty-four per cent of the reported cases are in this age group. This would suggest either a predilection on the part of type I pneumococcus pneumonia for the age group ten to forty-nine years or some other factor of selection operating in that age group.

Comparison of the treated and untreated cases by age groups shows a ratio of approximately ten to one (480 cases to 47) for the age group fifty and over and also for the age group ten to forty nine (1,377 cases to 131), whereas

*Read at the Annual Meeting of the Medical Society of the State of New York,
New York City May 11 1938*

TABLE V.—INFLUENCE OF THE DURATION OF THE DISEASE PRIOR TO SERUM TREATMENT

Day of Disease	Cases	Deaths	Case Fatality %	% of Total Known Cases By Day of Treatment
1	130	16	12.3	6.5
2	473	54	11.4	23.6
3	489	67	13.7	24.4
4	359	59	16.4	17.9
5	221	37	16.7	11.0
6	139	33	23.7	6.9
7 and over	195	74	37.9	9.7
Total known	2 006	340	16.9	100.0
Unknown	21	7		
Total	2 027	347	17.1	

taking of blood cultures from pneumonia patients. A reliable blood culture is now considered not only of prognostic value but also of even greater value as a check on the accuracy of the bacteriologic diagnosis and as an index of the intensity of serum treatment required in any given case.

Unfortunately, in this series of cases data are not available concerning certain other important factors such as the extent of pulmonary involvement, the previous condition of the patient with respect to general health, particularly the circulatory system, and the status of the leukocytic response to the infection.

II Controllable Factors Influencing the Outcome of Treatment

Duration of the disease at the time of treatment. From Table V it is apparent that with the single exception of the first day there is a uniform progression in fatality rate in direct relation to the duration of the disease at the time treatment was started.

The fatality rate of 12.3 per cent in the group in which treatment was started on the first day of illness seems unduly high. There are various theoretical factors concerned with the manner in which these data were obtained which may offer some explanation. The differences in individual physician's diagnostic criteria may be such that what one would be willing to diagnose as pneumonia on the appearance of early symptoms, another might not be willing to diagnose until the development of typical physical signs. It is possible to have as long an interval as three days between such extremes

and yet have each physician feel that he has diagnosed the disease at its actual onset. While on the record form employed, it is requested that the onset be dated from the occurrence of the "first significant fever, chill, pleurisy or rusty sputum," it is impossible to say to what extent symptomatic diagnosis actually has been made.

The high case fatality rate may also be due, at least in part, to the fact that in computing the case fatality rates by day of disease, calendar days have been used. Further, there is the possibility that inaccuracy of the records may unduly influence the so-called first day series by causing a larger proportion of poorly defined or "guessed at" data to be assigned to it than to the other groups. This possibility is being subjected to further investigation at the present time.

Each of the case fatality rates for cases treated within the first five days of illness appears to be significantly lower than the generally accepted rate of twenty-five per cent to thirty per cent for untreated type I pneumonias as a whole. This evidence appears important in view of the opinion of many authorities, that the period of usefulness of serum treatment is limited to the first three or four days of illness, but it may be misleading. The generally accepted rate for untreated cases as obtained from the literature is not necessarily an expression of a suitable control experience for the serum treated series. Moreover, the total crude case fatality rate for a control group should not be compared to the separate case fatality rate by day of treatment of a serum treated series, although this has become a commonly accepted procedure. Such a method is inaccurate, inasmuch as the prognosis for any given case of pneumonia, whether serum treated or not, may be expected to vary with each day of the disease.

For example, all cases of pneumonia at the time of onset face ultimate recovery or death. If sufficient facts were known, this chance of recovery or death would be expressible in terms of a constant rate. During the first twenty-four hours of illness in any given series, there will be a certain number of spontaneous recoveries, cases running an abortive course,

and also a certain number of deaths from fulminating forms of the disease. Clinical experience suggests that the abortive recoveries during the first twenty-four hours will outnumber the deaths. Therefore, the remaining cases as they enter the second twenty-four hours of illness will represent a selected group in which the outlook will be poorer than the outlook for the same group at the time of onset, in proportion to the difference between the cases eliminated by recovery and those eliminated by death. So, with each subsequent day of illness, the prognosis might be expected to change in proportion to this difference between survivals and deaths.

With sufficient observations it should be possible to obtain a true control curve for the day of illness which curve might then be applied as a base line to a similar curve prepared for serum treated cases. At the present time, however, the practical difficulties of obtaining such a base line appear almost insurmountable.

In considering the influence of the day of the disease on which serum treatment was given, only the fact of the survival or death of the patient has been employed. A probably equal, if not more desirable measure would be the influence of serum treatment on the total duration of the acute illness or on the period of absence from work or disability for work. Unfortunately, the data available do not permit such an analysis.

Serum dosage and period of time over which serum is given. Numerous attempts have been made to standardize serum dosage on an objective scale as a practical guide to treatment. The problem is extremely complex, however, and it is doubtful that much can be accomplished from the analysis of this or any other single group of cases yet assembled. Even assuming that variations introduced by differences in age, sex, bacteremia and other "uncontrollable" influences were negligible, there would remain the direct effect of certain other factors which are inseparably linked with the amount of serum used. For example the total dose would mean relatively little unless consideration were given to the duration of the disease at the time of treatment and to the period of time consumed in administering that dose. To illustrate

TABLE VI—CASE FATALITY RATE ACCORDING TO PLACE OF SERUM TREATMENT

	Cases	Deaths	Case Fatality %	% of Total Cases by Place of Treatment
Hospital	1 475	273	18.5	72.8
Home	551	74	13.4	27.2
Unknown	1	1		
Total	2 027	347	17.1	100.0

It would be unsound to assume that there would be no difference between the effect of 250 000 units of serum given within a period of twenty four hours and that of an equal amount given at the rate of 25 000 units a day for ten days.

To be sure, an analysis can be made which will take these variables and their interrelationship into consideration. This has been attempted with a sample of 627 adult cases from the present series. The end result is interesting but not conclusive. Among 544 cases treated on or before the fourth day of illness, the case fatality rate was 15.8 per cent, as contrasted with 33.9 per cent for 183 cases receiving later treatment. Of these 544 cases, 251 received less than 100 000 units of serum and 17.5 per cent of them died, 293 received 100,000 units or more and 14.3 per cent of them died. This does not offer very impressive evidence in favor of large dosage. However, if the last group of 293 cases is further analyzed, it is found that only sixty six of them received what might be termed "intensive" treatment that is to say, received all their serum within a period of twenty-four hours. Of these sixty-six cases only 6.1 per cent died while of the 227 cases who received a similar amount of serum but in which serum administration was spread out over more than twenty-four hours, 16.7 per cent died.

The difference appears impressive and is reinforced by the weight of clinical opinion. The principal source of possible error lies in the fact that both the total dosage and the period of treatment are often determined by the severity of illness or the recovery or death of the patient during the course of treatment. It is not known in what proportion these events have influenced the separation of cases in the above analysis. If their effect is nearly equal in all groups then

the figures are reasonably reliable. If not, a more extensive method of analysis must be developed which will undertake an adjustment of their differences.*

Nonspecific serum therapy The use of type I serum in the treatment of improperly typed cases, untyped cases, or cases of heterologous types has been encountered. Out of 129 such reports (not included in the 2,027 referred to in Table I) the crude case fatality rate was 28.6 per cent. Although a certain number of these may have been undiagnosed type I pneumococcus infections, the case fatality rate for the entire group is at a high enough level to discourage such usage.

TABLE VII—RESULTS OF TESTS FOR SENSITIVITY TO HORSE SERUM AND THEIR RELATION TO SUBSEQUENT TYPE SPECIFIC SERUM TREATMENT

Character of Test	Result of Test	Cases with Recorded Tests		Cases Showing Subsequent Evidence of Anaphylaxis	
		Number	% of Total Tested	Number	% Reactions of Total Tested
INTRADERMAL	Positive	70	7.3	22	31.4
	Negative	886	92.7	101	11.4
	Total	956	100.0	123	12.9
OPHTHALMIC	Positive	20	3.2	5	25.0
	Negative	604	96.8	81	13.4
	Total	624	100.0	86	13.8

III Miscellaneous Observations

Place of treatment It will be noted that 551 cases (twenty-seven per cent) of the entire group were treated in the home. During the first year of the program (1936), approximately thirty-three per cent were so treated, while during the second year (1937), this percentage fell to approximately twenty-five per cent (Table VI).

It is tempting to speculate upon the difference in case fatality rate between the home and hospital treated groups, but artificial selection probably operates heavily as it is quite certain that the hospitalized cases represent those who were more seriously afflicted.

Incidence of empyema Empyema occurred as a complication in 6.7 per cent of the total type I serum treated experience. This rate is very similar to that

recorded by Lord and Heffron,⁸ who observed an incidence of seven per cent in 637 type I cases serum treated within the first four days of illness.

Mixed infections Mixed infections were reported in only thirty-six cases, or 1.7 per cent of the entire series. The case fatality rate in this group, however, was 27.7 per cent, an observation which suggests that the untreated type or types continued to cause active infection with an average case fatality rate comparable to that commonly assigned to nonserum treated pneumococcus pneumonia as a whole.

Interpretation of tests for sensitivity to horse serum protein Certain data of in-

terest also have been obtained relative to the ophthalmic and intradermal tests for sensitivity to horse serum protein.* However, in studying reports submitted by a large number of different physicians, allowance must be made for variations in methods of performing and interpreting these tests.

Table VII shows the incidence of positive and negative reactions to these tests. The records of only 31.4 per cent of patients with positive skin tests and twenty-five per cent of those with positive eye tests give evidence of further local or general reactions exclusive of chills, upon subsequent serum administration. In 11.4 per cent of those with negative skin tests and 13.4 per cent with negative eye tests,

*In most instances the procedure followed for the intracutaneous test consisted of injecting 0.1 cc of a 1:100 dilution of normal horse serum in sterile physiological salt solution and of instilling a drop of a 1:10 dilution of normal horse serum for the conjunctival test. The recommended interval before reading was fifteen to twenty minutes.

*A complete study of over 3,000 type I cases is being undertaken along these lines and will be the subject of a future communication.

similar reactions were encountered, but in general they were less severe than in the cases with positive tests

It is impossible to state to what extent precautions may have been employed in treating cases showing evidence of sensitivity which may have modified the occurrence of anaphylactic manifestations. Furthermore, no record is available of the number of instances in which the presence of a positive test may have discouraged further attempt to administer serum

It is entirely reasonable to suppose that this experience, in so far as the positive reactions are concerned, represents a somewhat selected group from which the most serious risks have been removed. Nevertheless, these observations constitute concrete evidence to the effect that the results of these tests while suggestive cannot be considered conclusive indications of the nature or extent of the patient's subsequent reaction to intravenous serum administration

Summary

A partial analysis of records of 2027 cases of type I pneumococcus pneumonia with respect to the following factors and their influences upon the results of spe-

cific serum treatment has been presented

1 Age has been shown to have a direct influence upon prognosis in serum treated, as well as nonserum treated cases

2 Sex apparently influences morbidity but not mortality save through its relationship to pregnancy. The figures presented suggest that pregnancy may prove to be a factor predisposing to pneumonia and that the last four months most seriously influence the prognosis

3 The seriousness of bacteremia as reported by many other observers has been corroborated

4 The influence of the combined effect of the duration of the disease, the amount of serum given, and the intensity of the program of treatment has been considered. The importance and complexity of such a method of analysis has been discussed

5 A limited experience with non specific serum treatment is reported

6 Certain other miscellaneous observations relative to the percentage of cases hospitalized, the incidence of empyema, the incidence of mixed infections and the interpretation of the tests in current usage for determining sensitivity to horse serum protein have been presented

STATE DEPARTMENT OF HEALTH

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Discussion

DR. HENRY T. CHICKERING *New York City*—The report is a striking example of fine cooperation between a large number of physicians, hospitals and the state Division of Laboratories and Research. Over 2000 cases of serum treated type I cases in two years. In a similar campaign the state of Massachusetts treated 1,155 cases from 1931 to 1937.

Dr Rogers' admirable analysis of the results of serum therapy show how thoughtfully and carefully the material is being studied. I know it will be a great help to Dr Sutliff in his plans for carrying on the campaign for the control of the pneumonia problem in New York City.

Dr Rogers tables bring out very clearly the influence of the age of the patient on the mortality. It will immediately occur to all

why treat children in the age group 0 to 9 when the mortality is so low. Until recently I have felt that except in the cases with a bacteremia, serum was unnecessary in this group.

But, with the improvement in the concentrated serum and with the present technic of initial large amounts of serum the frequency of abortive cures is so great that one is justified in urging the use of serum because of the lessened strain of the infection on the patient and the tremendous relief to the feelings of the relatives.

The gross mortality statistics are not as good as can reasonably be hoped for with still greater cooperation on the part of practicing physicians. We know there is no better serum than that provided by the State Board of Health.

the figures are reasonably reliable. If not, a more extensive method of analysis must be developed which will undertake an adjustment of their differences.*

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Interpretation of tests for sensitivity to horse serum protein Certain data of in

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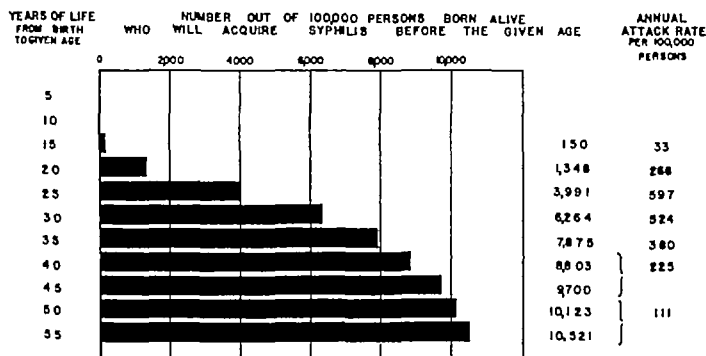
also have been obtained relative to the ophthalmic and intradermal tests for sensitivity to horse serum protein.* However, in studying reports submitted by a large number of different physicians, allowance must be made for variations in methods of performing and interpreting these tests.

Table VII shows the incidence of positive and negative reactions to these tests. The records of only 31.4 per cent of patients with positive skin tests and twenty-five per cent of those with positive eye tests give evidence of further local or general reactions exclusive of chills, upon subsequent serum administration. In 11.4 per cent of those with negative skin tests and 13.4 per cent with negative eye tests,

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*A complete study of over 3,000 type I cases is being undertaken along these lines and will be the subject of a future communication.

CHART I—PROBABILITY OF ACQUIRING SYPHILIS DURING LIFE IS ONE OUT OF TEN
(Based on 1937 Conditions in U.S.A.)



With this evidence that syphilis strikes one out of every ten adults" why is it that if a physician examines 100 people at random he does not find ten of them infected with syphilis?

There are several reasons

1. There will be many among the 100 persons selected who are either just beginning life or have reached only early adult life and therefore may still acquire the disease

2. There are those who have had syphilis but in whom the blood test has become negative either because of treatment or because this manifestation of the disease has spontaneously disappeared

3. There will be a proportionately smaller number of persons living who have acquired syphilis than of those who have not because syphilis shortens life expectancy between the ages of thirty to sixty years by seventeen to thirty per cent. Indeed the combination of these factors results in the probability of only one in 100 individuals in a random sample of the population being found to have syphilis.

Chart II shows the effect of these individual factors in reducing the number of persons with detectable syphilis in the Nation (Tables II and II-A)

The total area described in the chart includes all persons in the United States who acquire syphilis and seek treatment. Its contour is in distinct contrast to that describing the age distribution of the total population of the country. The segment of the population with syphilis included

TABLE I—NUMBER OF PERSONS ACQUIRING SYPHILIS FROM BIRTH TO END OF GIVEN AGE PERIOD OUT OF 100,000 BORN ALIVE (CONGENITAL SYPHILIS NOT INCLUDED)

Age period in years (a)	Annual attack rate per 100,000* population (b)	Number of years lived in a given age period by each 100,000 persons born† (c)	Known number of persons acquiring syphilis in given age period (b) x (c) (d)	Cumulated number of persons acquiring syphilis from birth to end of age period (e)
0-4		466 939		
5-9		458 453		
10-14		454 914	150	150
15-19	2 66	450 219	1 198	1 348
20-24	5 97	442 731	2 643	3 991
25-29	5 24	433 685	2 275	6 264
30-34	3 80	423 831	1 611	7 875
35-39	2 23	412 512	928	8 803
40-44		398 700	897	9 700
45-49	1 11	381 212	423	10 123
50-54		358 935	398	10 521
55-59	49	329 972	162	10 683
60-64		292 531	143	10 826
65-69		245 355	42	10 868
70-74		188 278	32	10 900
75-79		126 346	21	10 921
80-84	17	68 290	12	10 933
85-89		27 602	5	10 938
90 & over		9 303	2	10 940
Total		5 069 808		

* Mean of annual attack rates, specific for race and sex weighted by proportion of each race-sex group in the United States.

† Mean of number of years lived, specific for race and sex, from Tables I-A to I-D United States Life Tables 1930, weighted by proportion of each race-sex group in the United States.

under twenty five years of age represents a very small area yet at any given time approximately forty-eight per cent of the individuals in the Nation are under twenty-five years of age. The obvious reason for the low syphilitic population in the ages twenty-five years or less is that three

TABLE II — ESTIMATED NUMBER OF PERSONS IN THE UNITED STATES IN 1930 WHO HAVE ACQUIRED SYPHILIS, OF THOSE WHOSE BLOOD SEROLOGY HAS BECOME NEGATIVE THROUGH TREATMENT OR SPONTANEOUSLY, AND OF THOSE WHO REMAIN A POTENTIAL TREATMENT PROBLEM (CON- GENITAL SYPHILIS NOT INCLUDED)

Age Period (a)	Population of United States 1930 (unknown ages prorated) (b)	Total persons in given age period who have acquired syphilis		Per cent with negative blood serology* (e)	Persons in given age period whose blood serology had become negative through treatment or spontaneously		Persons in given age period who remain a potential treatment problem	
		Absolute (c)	Per 1000 (d)		Absolute† (f)	Per 1000 (g)	Absolute‡ (h)	Per 1000 (i)
0- 4	11,453,161							
5- 9	12,617,271							
10-14	12,014,078	3,962	33	16	634	05	3,328	28
15-19	11,560,969	34,659	3.00	16	5,545	48	29,114	2.52
20-24	10,878,709	96,525	8.87	16	15,444	1.42	81,081	7.45
25-29	9,841,144	138,741	14.10	33	45,785	4.65	92,956	9.45
30-34	9,127,411	162,696	17.83	33	53,690	5.88	109,006	11.95
35-39	9,215,703	172,694	18.74	33	56,989	6.18	115,705	12.56
40-44	7,996,319	173,849	21.74	33	57,370	7.17	116,479	14.57
45-49	7,047,676	156,259	22.17	44	68,754	9.75	87,505	12.42
50-54	5,980,384	135,493	22.66	44	59,617	9.97	75,876	12.69
55-59	4,649,237	109,474	23.55	47	51,453	11.07	58,021	12.48
60-64	3,754,096	83,505	22.24	47	39,247	10.45	44,258	11.79
65-69	2,772,728	59,302	21.39	47	27,872	10.05	31,430	11.34
70-74	1,951,498	39,217	20.10	47	18,432	9.45	20,785	10.63
75-79	1,107,238	22,645	20.45	47	10,643	9.61	12,002	10.84
80-84	535,086	11,304	21.13	47	5,313	9.93	5,991	11.20
85-89	205,626	4,811	23.40	47	2,261	11.00	2,550	12.40
90-94	51,704	1,613	31.20	47	758	14.66	855	16.54
95-99	11,041	378	34.24	47	178	16.09	200	18.15
100 and over	3,967	53	13.36	47	25	6.28	28	7.08
Total	122,775,046	1,407,180	11.46		520,010	4.24	887,170	7.22

* Under present-day detection and treatment facilities only 16 per cent of persons acquiring syphilis receive enough treatment to reverse their blood serology (Usilton L. J. *Ven Dis Inform* May 1935). Of the eighty-four per cent who do not receive enough treatment to reverse their blood serology the percentage shown in column (2) of the table below have reversed spontaneously within the period from infection to examination shown in column (1) (Bruusgaard). The total per cent of syphilitic persons who show a negative blood serology after a given period from infection to examination shown in column (3) is therefore the treated sixteen per cent plus the percentage shown in column (2) of the untreated eighty-four per cent. In applying these percentages to the age periods of Table II the interval from infection to examination was taken as the interval from the age at which the greatest number of infections occurred to the given

Interval from infection to examination (1)	Percentage spontaneously reversing blood serology (2)	Percentage with negative blood serology (3)
3-10 years	20	33
10-20 years	20	33
20-30 years	33	44
30-40 years	37	47

age. For instance in Table II-A, the interval from the age period 20-24, in which the greatest number of infections occurred (see column (e) of Table II-A), to the age 45-49 is twenty-five years. The percentage (44) shown in the above table for an interval of twenty to thirty years is therefore used in column (e) of Table II for per cent with negative blood serology at age period 45-49 years.

† Column (c) x column (3) + 100

‡ Column (c) - column (f)

fifths of these people (children of less than fifteen years) have not yet attained the age at which syphilis is acquired. This observation indicates how improbable the chances are of finding a high rate of syphilis through routine blood testing of applicants for marriage licenses in whom persons under twenty-five years of age predominate. Further, it reveals the probability of finding a higher prevalence rate of syphilis among persons in industry than among applicants for marriage licenses.

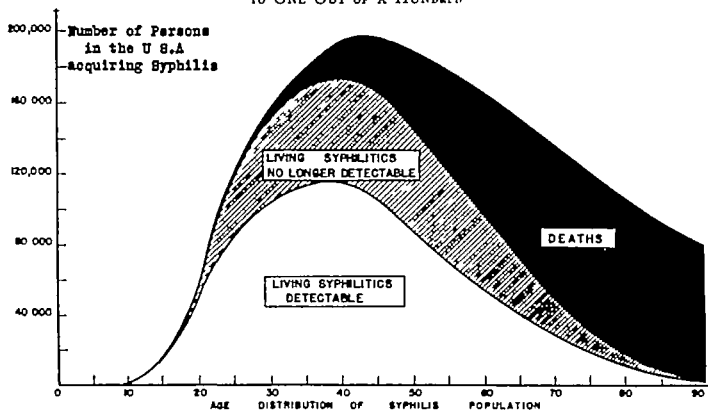
The effect of the disappearance of a positive blood test in the syphilitic person, enumerated as the second factor in reducing the number with detectable syphilis in the population, is depicted by the

striped section. Nearly a third of those contracting syphilis have a negative blood test under present-day serologic technics either because the blood spontaneously clears or becomes negative as a result of treatment.

The third, and last, significant factor in reducing the number of persons who have acquired syphilis is the high death rate among syphilitic patients. The black band draped over the area takes out that segment of the population which have acquired syphilis and died.

Chart III is presented to define more clearly the extent of the death shadow due to syphilis in the preceding figure. The syphilis life toll is indicated by the decrease in life expectancy due to syphilis

CHART II—FACTORS WHICH REDUCE THE NUMBER OF PERSONS WITH DETECTABLE SYPHILIS TO ONE OUT OF A HUNDRED



in the white and colored male population of the United States between the ages of thirty and sixty. The white bars describe the number of years the general population will live at given ages. The black bars indicate the shortened life span in those who have acquired syphilis and who die regardless of the cause of death.

This explanation indicates some of the reasons that reported rates seem at such variance. Thus one reconciles the statements that "syphilis strikes one out of ten adults," that "only one person in a hundred is positive on routine testing of the blood in antenatal physical examinations" but that this rate of one in a hundred positives increases to four in a hundred when the group tested are employees of an industry, and that official reports indicate "four per 1000 population are constantly under treatment for syphilis." On critical analysis each statement simply substantiates the other although at first glance they seem to be contradictory.

Frequency of Disastrous Outcome

What is the probability of disastrous outcome if a person has syphilis, neglects treatment or as is often true, is ignorant of his infection? To what extent are his prospects improved if he obtains standard treatment for the infection?²¹⁻⁴

Throughout the reports of the Coop-

erative Clinical Group considerable limitation has been necessary in reporting a promise of cure with standard treatment for syphilis because of the relatively short observation periods in treated patients. Since publication of the earlier reports of the Cooperative Clinical Group an intensive follow-up has been made of those patients who had received the minimum required treatment by a satisfactory schedule during the early stages of the disease. These efforts have been rewarded by the return of a fairly significant group of patients for observation and re-examination. Thus today a more confident statement can be made on the outcome of syphilis under modern therapy after a period of ten to twenty years' observation.

In the analysis of these data the probability of disastrous outcome has been presented in terms of patients observed for a given length of time. No assumption is made as to the probability of a disastrous outcome for those who disappeared from observation before this period. This procedure has been used because it is believed that a selective factor is operating in the group which dropped out. Those patients in whom the best response to treatment is obtained, more frequently fail to continue treatment and observation over prolonged intervals. This selective factor prevents

TABLE II-A — CALCULATION OF ESTIMATED NUMBER OF PERSONS AGED 45-49 YEARS IN 1930 WHO HAVE ACQUIRED SYPHILIS

Age period (a)	In year (b)	Popula- tion of United States in given age period and year (000 omitted) (c)	Annual attack rate per 1000 popula- tion in given age period and year (d)	Known number of persons acquiring syphilis in given age period and year (e)	Proba- bility of survival in given year from middle of age period to middle of next (f)	Syphilitic survivors in given year from earlier age periods (g)	Total persons in given age period and year who have acquired syphilis (h)	Deaths of syphilitic persons from middle of age period to middle of next (i)
0- 4	1885	7 275						
5- 9	1890	7 574						
10-14	1895	7 557	37	2 796	990		2 796	28
15-19	1900	7 556	3 01	22 744	983	2 768	25 512	434
20-24	1905	8 196	6 31	51 717	977	25 078	76 795	1 766
25-29	1910	8 180	5 45	44 581	968	75 029	119 610	3 828
30-34	1915	7 522	3 84	28 884	955	115 782	144 666	6 510
35-39	1920	7 775	2 27	17 649	935	138 156	155 805	10 127
40-44	1925	7 168	2 26	16 200	917	145 678	161 878	13 436
45-49	1930	7 042	1 11	7 817		148 442	156 259	

As an example the calculation of the estimated number of persons aged 45 to 49 years in 1930, as given in Table II is shown in Table II-A. The persons who were aged 45 to 49 years in 1930 were aged 0 to 4 years in 1885 5 to 9 years in 1890, and so on. Column (c) of Table II-A shows the population of the United States in the age period shown in column (a) and the year shown in column (b). The populations in intercensal years such as 1885 were obtained by linear interpolation from adjacent census years. The excess of persons aged 5 to 9 years in 1890 over those aged 0 to 4 years in 1885 is due to incomplete enumeration of children under 5 while the excess of persons aged 20 to 24 years in 1905 over those aged 15 to 19 years in 1900 is due to immigration. Column (d) shows the annual attack rate of acquired syphilis per 1000 population in the given age period and year. These differ slightly from the attack rates given in column (b) of Table I since in Table II-A the basic attack rates specific for race and sex as well as for age, are weighted by the proportion of each race-sex group in the United States in the given year, whereas in Table I they are weighted by the estimated proportion of each race-sex group in 1937. The number of persons acquiring syphilis in the given age period and year given in column (e) is the product of the corresponding items in columns (c) and (d). Thus, 7,557 x .37 = 2,796. The probability of survival from the middle of one age period to the middle of the next given in column (f) is the mean of the probabilities of survival of persons who have acquired syphilis specific for race and sex weighted by the proportion of each race-sex group in the United States in the given year. The syphilitic survivors in a given year from earlier age periods given in column (g) are the product of the total persons who have acquired syphilis in the preceding line of column (h) and the probability of survival in the preceding line of column (f) while the total persons who have acquired syphilis given in column (h) is the sum of the items in the same line of columns (e) and (g). Thus 2,796 x 990 = 2,768 while 22 744 + 2 768 = 25 512. A similar calculation is made for each age period of Table II. The 7,042,000 shown as the population aged 45-49 in 1930 does not include a proration for persons of unknown age whereas the figure shown in Table II does include such a proration.

CHART III—SYPHILIS' LIFE TOLL (BASED ON 1937 CONDITIONS IN USA)

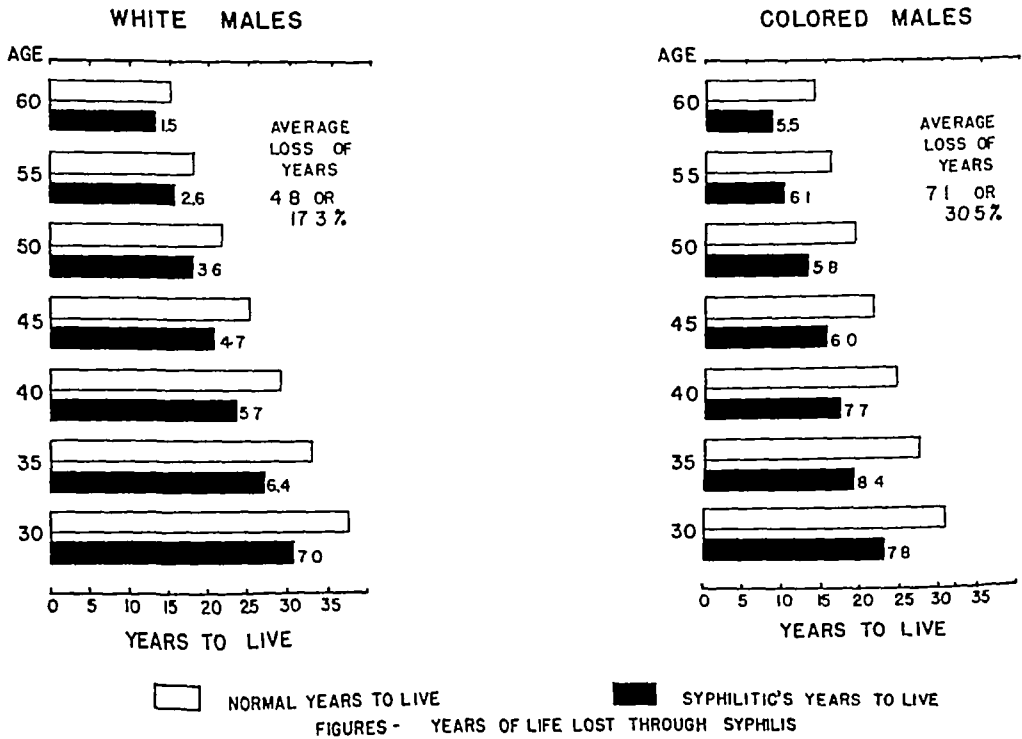
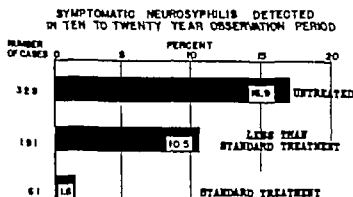


CHART IV—PROBABILITY OF DEVELOPING SYMPTOMATIC NEUROSYPHILIS IN TREATED AND UNTREATED SYPHILIS



dealing with the patients on an actuarial basis, since to pursue such a course would involve the assumption that those who drop out have the same probability of a disastrous outcome as those who remain under treatment

Chart IV shows the frequency of developing symptomatic neurosyphilis in the second decade of the infection. In individuals with untreated syphilis, symptomatic neurosyphilis was detected in seventeen out of a hundred examined ten to twenty years after infection. In a group of syphilitic patients who failed to receive the minimum required treatment or did so under haphazard irregular schedules, the chances of developing symptomatic neurosyphilis in the second decade after infection decreased to ten out of a hundred. Standard treatment for syphilis, as advocated by the Cooperative Clinical Group and the U S Public Health Service decreased the chances of the syphilitic patient followed for ten to twenty years after infection to approximately two in a hundred for the development of symptomatic neurosyphilis

Thus, in a group of patients examined ten to twenty years after infection, the chance of a disastrous outcome decreased from seventeen per hundred with no treatment to ten with less than standard treatment to two with the best treatment method

Chart V shows the influence of treatment in protecting the syphilitic patient from cardiovascular involvement in the second decade of the disease. In the group of untreated patients re-examined by Bruusgaard development of definite cardiovascular syphilis was detected most frequently in the third and fourth decade

Since the arsenical era is still of too short duration to find well treated patients with a longer observation period than ten to twenty years, a statement on the effectiveness of treatment must be so limited, with admission that the evidence is still inconclusive as to ultimate results. However, it is most encouraging that in the group re-examined in the second decade after infection there were no patients with a definite cardiovascular involvement who had been given standard treatment during early syphilis. There was no significant difference in the effect of less than standard treatment and no treatment in the development of this manifestation in the second decade after the infection (Table III)

To what extent have the results reported for patients observed for three to ten years after infection been maintained in the longer ten to twenty-year observation periods? From Chart VI it can be observed that the effectiveness of standard treatment for early syphilis reported for patients followed three to ten years has been maintained in those patients observed and re-examined in the second decade after infection. In this longer observation period eighty five per cent of patients who had received the minimum required treatment in the early stages of the infection under the recommended schedule were found on re-examination to be completely free of any serologic or clinical evidence of the syphilis

There was a preponderance of late skin and bone syphilis in the untreated patients these lesions occurring in approximately one third of those examined. This

CHART V—PROBABILITY OF DEVELOPING CARDIOVASCULAR SYPHILIS IN TREATED AND UNTREATED SYPHILIS

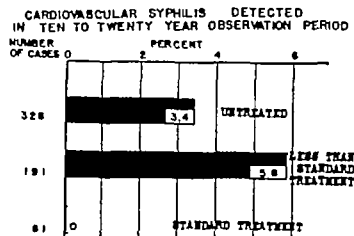


CHART VI—FREEDOM FROM ANY DETECTABLE EVIDENCE OF SYPHILIS IN TREATED AS CONTRASTED WITH UNTREATED SYPHILIS

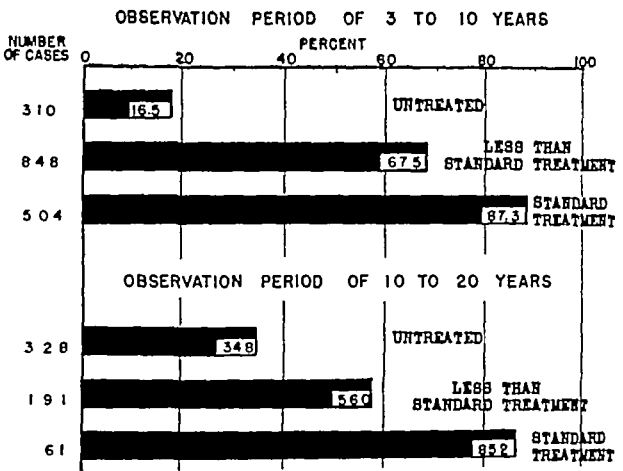


TABLE III—THE OUTCOME IN TREATED EARLY SYPHILIS COMPARED WITH THE OUTCOME IN UNTREATED EARLY SYPHILIS (ANALYSIS BASED ON LIVING PATIENTS ONLY)

Status of patient at time of final examination	Untreated cases*		Less than stand- ard treatment†		Standard treatment‡	
	3-10 yrs. per cent	10-20 yrs. per cent	3-10 yrs. per cent	10-20 yrs. per cent	3-10 yrs. per cent	10-20 yrs. per cent
	3-10 yrs. per cent	10-20 yrs. per cent	3-10 yrs. per cent	10-20 yrs. per cent	3-10 yrs. per cent	10-20 yrs. per cent
Neurosyphilis						
Symptomatic	5.7	16.9	4.1	10.5	6	1.6
Asymptomatic	12.7	6.1	4.6	5.7	2.6	1.6
Cardiovascular						
Definite	1.9	3.4	1.4	5.8	1.2	
Suspicious			6	2.1	2	4.0
Skin, mucosal or bone	32.0	29.5	2.4	1.6	4	
Visceral	1	1		5		
Ocular	1			5		
Symptom free						
Positive blood	31.0	0.2	19.5	17.3	7.7	6.6
Negative blood	16.5	34.8	67.4	56.0	87.3	85.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of cases	310	328	848	191	504	61

* Bruusgaard's whites and southern Negroes weighted by proportion of each race in U S A
† Cases in 5 cooperating clinics in U S A.—cases receiving less than 20 doses of arsphenamine with heavy metal plus irregularly treated cases receiving 20 or more doses of arsphenamine with heavy metal
‡ Cases in 5 cooperating clinics in U S A.—Continuously and intermittently treated cases receiving 20 or more doses of arsphenamine with heavy metal

high frequency of benign late syphilis was found in both the shorter and the longer observed patients. In the treated patients this type of manifestation of syphilis had practically vanished

Conclusions

1 The probability of acquiring syphilis at some time in life is one out of ten. This statement is based on the annual attack rate applied to 100,000 individuals born alive and followed throughout life. Although the annual attack rate seems low, when cumulated to indicate the probability of acquiring syphilis by a given age, it is found that 10,000 people before the attainment of the fiftieth year of life

will have acquired syphilis out of every 100,000 born alive

2 This rate is different from that found on routine serologic examination of persons tested under the antenuptial physical examination laws, in industry, or in any random sample of the population. Several reasons for these differences are given: (a) Many persons in a random sample are still in danger of acquiring the infection, (b) The blood test for syphilis becomes negative either spontaneously or as the result of treatment in many infected persons, (c) Death removes from the population a high proportion of those who are infected

3 Treatment decreases the probability of a disastrous outcome in syphilis. Symptomatic neurosyphilis decreases from seventeen in a hundred untreated syphilitics to two under standard treatment during early syphilis. No patients with cardiovascular syphilis were detected among those well-treated and re-examined ten to twenty years after infection

4 The excellent results (85 per cent 'cures') obtained with standard treatment in early syphilis reported for patients examined in the three to ten-year observation period were maintained by those patients so treated and re-examined ten to twenty years after infection

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SERODIAGNOSIS OF INFECTIOUS DISEASE

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As medical science advances, clinicians must depend upon definite information concerning the reaction of the tissues not only for diagnosis but also as a practical guide for treatment, hence, the constantly increasing practical value of serologic methods that indicate the changes induced by infectious disease. Of these, complement fixation is the procedure that is the most sensitive and specific when accurately standardized, but it is also the most complex and difficult, and the methods have hitherto never provided a quantitative titration of specific activity.

Agglutination—the earliest serologic test to be applied practically in diagnosis—has definite qualitative significance in typhoid and related infections in typhus fever, and in the differentiation of the types or strains of the pathogenic incitants of infectious diseases, in short in those instances in which the intact bacterial cells serve as antigens. The trend of future serologic investigation of the different characteristic manifestations of infectious disease is indicated possibly by the differentiation obtained with the O and H agglutination of the typhoid bacillus, but the scope of such differentiation is limited by the character of the antigen. In the classification of pathogenic incitants the species as well as the groups, types and subtypes, and strains, have been distinguished by agglutination or absorption tests with the intact bacterial cells.

Whatever the method, the significance of any serologic test is primarily dependent upon the antigen. In the further differentiation of group types, or strains within a species the serologists have turned from agglutination and absorption tests with bacterial cells to the study of the activity of the protein, lipid or carbohydrate fractions of the bacterial culture in order to obtain results of more

definite significance. Complement fixation possesses all the sensitivity of an agglutination test and is not so limited in the character of the antigens that may be used. Chemically purified fractions, however, may not, and our present limited experience suggests that they do not always act as they do when in their more complex native state, hence the importance of comparative studies and the trial of simple methods of refinement such as we now favor—ultrafiltration, for example. Precipitation is the simplest procedure and whenever practicable it is, in general the method of choice.

Experience in the diagnosis of syphilis with the two methods precipitation and complement fixation in the joint studies at Copenhagen and Montevideo¹ as well as in the recent series of the United States Public Health Service,² has disclosed the relative merits of the two methods as practiced by expert serologists in this field. In general the results with precipitation were considered the more satisfactory yet the report published under the auspices of the League of Nations recommended both tests. No precipitation test has quite equalled in sensitivity and accuracy the highest record obtained with complement fixation. There is obviously great difficulty in securing a true evaluation of the two methods even from the practical standpoint of diagnosis—hence the fluctuating balance of opinion. The difficulty is that in both tests as hitherto practiced, the analysis for diagnosis has not been supported by the data of accurate quantitative titration. The quantitative connotation of the results, upon which diagnosis often largely depends has been only an approximation which serologists suspect varies widely. The new quantitative procedures³ are therefore most timely and have already been extremely

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May 5 1938*

valuable in determining the limitations of the several procedures used in the recent comparative tests by the serologists in this country, an analysis of which is now in preparation for publication. In the light of detailed comparative results obtained by the different methods in each case of these series, complement fixation is clearly the most reliable and accurate method, despite the fact that at first glance the general impression may favor the precipitation test. Not one of them, however, quite equals the results which Gilbert reported.

A year ago the methods which had been developed by Gilbert,⁴ for fifteen years referee on Serological Tests for the Diagnosis of Syphilis with the Committees of the American Public Health Association, and which have given most satisfactory results in all the comparative series, were supplanted by an adaptation of the more elaborate methods developed by Dr and Mrs Maltaner,^{5,6} which provide an accurate quantitative determination of the specific activities in the patient's serum. The new methods, which give all the information provided by the previous tests and, in addition, a numerical index of the titer of the serum, depend upon the linear relationships that obtain between the quantities of complement and serum or antigen when these are present in sufficient relative quantities to give the maximum activity in the reaction. In order to make comparisons that indicate accurately changes in complement activity, the hemolytic reaction must be read at points of partial hemolysis, as in the studies⁷ of Brooks—not at points of complete hemolysis or inhibition. The complement unit is titrated to the point of fifty per cent hemolysis. The antigen—cholesterolized alcoholic extract of beef heart—alone must have no effect on complement, it must be free from anticomplementary action. The antigen is titrated with sera of low, medium, and high titer to determine the ranges of its activity and the values by which the readings of partial hemolysis may be interpolated to the point of fifty per cent hemolysis at which point only do the comparisons indicate true linear relationships. These interpolation values may be determined directly by plotting the results of the

titration, or mathematically by the formula of von Krogh.⁸

Tables of these values enable the technician to read at a glance the quantities of complement required for fifty per cent hemolysis indicated by any degree of partial hemolysis obtained in the test. Thus, in the practical test, the serum is titrated with one and with two units of complement to determine its activity without antigen, then, the serum with antigen is titrated with three, six, and twelve units of complement to determine its activity with antigen. The ratio between the amounts of complement required for fifty per cent hemolysis with serum alone to that required with serum and antigen is the numerical index of the titer of the serum. A ratio of 1:1, that is, a titer of one, indicates no reaction. In this range of the test, titers to ten may be determined. With sera of higher activities, smaller amounts, in proportion to the quantities of antigen and complement, must be used. An excess of antigen may give rise to prozone types of reaction, an excess of serum gives rise to proportionally less increase in the reaction but not to the actual inhibition that occurs with too large an excess of antigen. Excess of either serum or antigen as well as the anticomplementary action of the serum is readily detected from the results. With some of the bacterial antigens, in particular the tubercle extract, prozone reactions have not been such disturbing factors.⁹

In a recent comparative series, healthy normal, nonsyphilitic individuals had titers of from 1 to 1.5 but none exceeded 1.6. Practically all the sera that in the former test gave complete fixation (4+) have had in the quantitative test a titer of six, seven or much higher. Titers of 200 or greater have been observed in syphilis and in tuberculosis when, in special investigations they have been titrated in the higher ranges of complement fixation which require larger quantities of antigen and complement. Some of the sera from known syphilis which have been reported as "doubtful" by other observers in their tests have had with the quantitative test titers greater than ten. This is obviously an instance of prozone phenomena. With the high titers of the quantitative test there is

less uncertainty regarding the diagnostic significance of the test, on the other hand, with the very low titers there is an obligation on the part of the clinician to interpret the significance of the results. With previous methods these very low reactions would have been reported as \pm (doubtful). In a known normal healthy person a low ratio obviously would not be significant, but with a known case of syphilis under treatment or after recovery, a low ratio would have to be interpreted by the clinician and confirmation of its permanency made by tests repeated at intervals. Thus the more accurate the test the greater is the obligation on the part of the clinician to interpret its significance.

These new methods of accurate quan-

titative titration by complement fixation since they may be used with tissue extracts as well as with bacterial cultures and purified fractions in the diagnosis and investigation of spirochetal and bacterial infections—and possibly the virus diseases—open a greatly extended field of investigation to the serologist.

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Discussion

DR. CARL W. LANCE, Albany—I can give only a very summary review of how the new quantitative complement fixation might be used for prognostic and therapeutic purposes in syphilis. The first truly quantitative test in serology was the quantitative precipitin analysis whose basic principles were adopted in the quantitative complement fixation of Wadsworth and the Maltaners. The generally used qualitative Wassermann reaction today knows neither a quantitative end point titration nor a quantitative adjustment of the reagents according to the modern principle of optimal proportion. The new quantitative complement fixation provided for the first time a quantitatively dependable end point titration in syphilis throughout the whole range of highest or lowest titers.

The range of possible syphilis titers is surprisingly large the normal reaction being equivalent to a so-called ratio of one, early secondary syphilis and particularly paresis or prenatal syphilis may reach ratios of 500 or even 1000. The 4+ results of the qualitative tests correspond roughly to a minimum ratio of 6-7 that is they may correspond to any numerical value between 6 and 1000. In short, the generally recommended qualitative test covers less than one per cent of the possible syphilis titers.

A single titer has indeed no prognostic significance, whether it is high or low or even negative. Prognostically quite opposite types like paresis or early secondary syphilis may show exceedingly high titers. Early primary syphilis may show a low titer or even negative reaction the same as

a diffuse aortitis tabes or particularly malignant syphilis.

The actual value of a quantitative syphilis titer can only be recognized when it is used not as a still picture but as a moving picture that is as a titer curve showing the quantitative response to specific treatment. The response of an individual syphilitic infection to specific treatment depends chiefly in my judgment not on the localization in different organs for instance in the skin as opposed to a localization in the nervous system but on whether a focal or diffuse tissue reaction prevails. The representative of a focal reaction is the circumscribed and massive papula. It becomes manifest early cures spontaneously and accordingly responds readily to specific treatment this represents the optimal defense mechanism against syphilis. Paresis or aortitis or particularly prenatal syphilis represents the prognostically unfavorable type of diffuse syphilis the tissue proliferation is slow and disorderly it becomes very lately manifest. The diffuse type spreads spontaneously its response to treatment may be different early intensive treatment may cure it whereas late and irregular treatment may even enhance its spontaneous tendency for spreading. Fortunately the predominance of the focal or diffuse syphilis of the favorable or unfavorable defense mechanism seems to be expressed as a rule by the titer curves.

To illustrate briefly this difference we may compare three hypothetical titer curves starting identically from the high initial titer of 500. The first may be a secondary papular exanthema the second an initial

paresis, the third a prenatal syphilis. In response to treatment the titer of the secondary syphilis will go down rapidly and in a straight line, it may reach the zero point after six to eight months of continuous treatment. After the same amount of treatment, the initial paresis and the prenatal syphilis will show a considerably lower decrease of the initial titer, the curve does not go down in a straight line but there may be irregular fluctuations. This different response to treatment is as yet only known as guesswork, it has been accepted today as a rule that something must be wrong when the blood Wassermann does not become negative after about one year of regular treatment. In such cases the examination of the spinal fluid has been suggested and indeed, a considerable

percentage of such cases shows syphilitic changes in the spinal fluid. Our suggestion is the same, only on the exact quantitative basis of titer curves. Finally, it is highly probable that an unsatisfactory response to treatment indicates not only the probability of neurosyphilis but generally the tendency to diffuse syphilis or an inefficient defense mechanism in all organs which includes also the most dangerous forms of cardiovascular syphilis.

The slightest information in this direction is of high significance because there are no local methods for recognizing the initial stages of aortitis, for instance, before secondary destruction sets in, as compared with the highly developed methods for recognizing the very first stages of neurosyphilis.

Statement Regarding the New Serologic Tests for Syphilis, Tuberculosis, and Gonorrhea

AUGUSTUS B WADSWORTH, M D

This notice is to inform physicians in regard to the new method of reporting the results of the serologic tests for syphilis, tuberculosis, and gonorrhea. The tests have been completely revised in order to provide a quantitative evaluation of the degree of specific reactivity in the patient's serum. These methods have been in operation for a year, provide all the information of the previous test and, in addition the titer of the serum.

The test in syphilis and tuberculosis is well established, that for gonorrhea is in the experimental stage but the results of all serologic tests must be interpreted by the physician in the light of his clinical diagnosis. This is obviously particularly true of the very low titers which may indicate specific activity in known cases of the disease, but which may safely be disregarded if other evidence of the disease is not obtained.

The quantitative test permits reporting a numerical value which is a direct index of the degree, or titer, of the reaction. When no reaction occurs—that is, when the findings are the same in the test and control—the numerical value of the titer is 1, when the reaction is twice as great in the test as in the control, the titer is 2, etc.

In syphilis, titers of less than 15 have been recorded in the majority of known cases when intensively treated, although in some such cases titers of 2 or more may occur. A titer of 15 has been observed with an extremely small percentage of specimens

from healthy individuals. Whether or not titers slightly in excess of 2 occur in conditions other than syphilis is not known and, therefore, the significance of reactions of this degree should be carefully considered. The higher the titer the greater is its significance in diagnosis. Specimens with titers greater than 6 have given reactions of complete fixation (4+) with the previous method. Titers of 100 or greater have been determined in a few cases under special investigation, but it is not practicable at the present time to report the degree of reactions when the titers are greater than 10.

In tuberculosis our practical experience indicates a corresponding range of titers, from 1 to 100 or greater, but the zone which requires special precaution in interpreting the results is much broader with this bacterial antigen than it is in syphilis, including reactions approximating 3. Titers of 15 to 3 are frequently observed in cases without clinical evidence of tuberculosis. However, titers greater than three are relatively infrequent without signs of tuberculosis. The clinician has the safeguards of sputum and x-ray examinations as well as the tuberculin test as a basis for the interpretation of the results of the serologic test of the specific activity in the blood serum.

In gonorrhea our practical experience is so limited that the complement-fixation test with gonococcal antigens for the present must remain on an experimental basis. The results of the serologic tests in gonorrhea

(Continued on page 1395)

Read in General Sessions at the Annual Meeting of the Medical Society of the State of New York, New York City, May 10, 1938

FRACTURES IN THE SMALL HOSPITAL

With Observations on the Common Sources of Error and the Fundamentals and Psychology of Treatment

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Director of Surgery Good Samaritan Hospital

Fractures are every doctor's concern for they have increased to the point where they now share with appendicitis the distinction of being the two most prevalent acute surgical conditions. Our machine age and the automobile have of course had much to do with this and statistics show that two-thirds of all automobile accidents occur in the rural communities. Fractures take place, therefore as frequently in the country as in the city, and are brought to the small hospitals as often as to the large. As a result of this the general practitioners are obliged to render emergency care to many of these cases. In fact, the complete treatment usually is carried out by them and by the general surgeons, and not by specially trained traumatic surgeons. Since this situation is an established fact and not a theory it behooves the medical profession to make the best of it.

As director of surgery in a small but busy and approved suburban hospital with a scattered staff of twenty-one members the writer has had ample opportunity to treat personally and observe the treatment rendered several hundred fracture cases. From this experience a few observations and conclusions in particular have gradually evolved, and are the inspiration of this paper.

It is our hope that by enumerating these observations we may be of assistance and help to the average general practitioner and general surgeon who is finding himself forced to treat more and more fracture cases, but who realizes all too well that his training is inadequate. Therefore, some psychological as well as quite elementary points will be stressed but for the very reason that they are elementary they are of the greatest importance, as they occur in every case and their neglect will mean poor results. The indulgence of the traumatic surgeons who read this article is asked as there is nothing in it that they do not already know and practice daily.

The treatment of fractures is a perfectly logical procedure, and there is nothing mysterious about it. In fact, in many cases it is moderately simple and within the potential ability not only of the average general surgeon, but also of the average general practitioner. In spite of this, there is no class of cases that is more poorly handled by the majority of the profession, and in which the results are needlessly so unsatisfactory. The reasons for this anomalous condition are three. *First*, ignorance of a few fundamental rules and principles regarding fractures and their care. *second* a careless disregard of these fundamentals when they are known. *third* a general inaptitude for fracture work. The first two can be overcome by study and effort. The third however is a very different condition and those afflicted with this inaptitude and aversion for the treatment of fractures owe it to themselves as well as their patients to desist from this work and to refer it to some one who likes and understands it. This particular inaptitude is no reflection on any doctor's general ability, but is simply a criterion of his mental leanings just as for example, some of us who are successful clinicians would be sorry failures as research or laboratory men.

The first important prerequisite to the successful treatment of fractures is a proper mental attitude and mental reaction on the part of the doctor toward these cases. This state of mind is rather intangible and hard to define but is very real and very important, for he who would treat these cases successfully must become *fracture minded* or *fracture-conscious*. He should approach and consider a fracture seriously and never disdainfully and remember that poor results are permanent and disabling regardless of the fact that there is no mortality to most cases. This absence of mortality in the average fracture case is undoubtedly the reason so many inadequately prepared doctors not

only undertake the treatment of these cases, but also consider them so lightly. Fractures are serious, and the oft-repeated remark that "anybody can treat a fracture" is a dangerous fallacy.

Next, and of even greater importance, is the ability to *visualize* the case clearly—to be able to picture first the fragments of bone and their positions, and then the attachment of the different groups of muscles and which way they pull. This is easily and quickly accomplished by a few minutes study of the x-ray films and of a surgical anatomy book. There is always plenty of time for this study, and to review the anatomy is nothing of which to be ashamed. On the contrary, it is both logical and praiseworthy and all too often neglected. No one should proceed to repair a fracture without a definite vision and idea of what he is trying to do, and why he is trying to do it, and unless he has these he should call upon a qualified consultant. Otherwise he is flirting with failure, and making himself liable to the not infrequent criticism that "he does not know what it is all about."

However, one should not become discouraged too soon or too easily, for good fracture sense and judgment are acquired by study and effort and association with a competent and more experienced doctor. In our hospital the quality of the fracture work is improving steadily, and each year a better understanding of the subject is being gained by the entire surgical staff.

Third, remember that the treatment of a fracture is not finished until the patient returns to work. This means weeks of long and painstaking care and attention to many details by the attending doctor. Too many lose their keen interest in these cases and consider them as good as completed when the traction apparatus or the splints and plasters have been applied.

However the mere application of suspension and traction or splints is no more all there is to the successful treatment of a fracture, than is the mere baiting of a hook and throwing it into the water all there is to successful fishing. Unquestionably both are of prime importance but they are only the beginning.

The *first two weeks* of treatment will determine seventy-five per cent of the success or failure of the result in most

cases. During that time the fragments can be manipulated freely, whereas soon afterward callous formation prevents this. Therefore, be particularly diligent during this period, and examine and x-ray and fluoroscope the parts enough times to make sure the alignment and position are satisfactory.

Skeletal traction has proved conclusively to be so superior to the various methods of adhesive traction applied to the skin that with few exceptions it should always be used when possible. Most men have a natural but needless aversion to skeletal traction until they have used it, for the Kirschner wire and Steinmann pin have proved to be perfectly safe. Both can be inserted readily, quickly, and painlessly under local anesthesia, and they can not slip once they are *in situ*, and the patient is much more comfortable than with adhesive traction to his skin. Their insertion is easily performed under local anesthesia if the surgeon will make a tiny cut into the anesthetized skin at the designated points of entrance and exit, and, following this, if he will then make sure that the limb is held firmly so that the ends of the fractured bone do not angulate and grate against each other while the wire or pin is being pushed through.

The director or guide that is supplied at small cost for use in inserting the Kirschner wire is also a most excellent little device for holding the leg steady during this operation. In fact, its use as a support we consider of equal value to its use as a guide, and it serves as both at the same time. When inserting the Steinmann pin the limb is grasped firmly with the other hand, and steady pressure is made against the force that is inserting it. An assistant can be of real help by maintaining steady, firm manual support, and counterpressure to the limb during the operation. These two simple maneuvers of firm steady support and counterpressure are the secrets to a quick, painless, and workman-like insertion of the wire or pin.

This brings up the important subject of touch, for there most certainly is such a thing as the *fracture touch*, and although it has no direct bearing on the result, its indirect influence is great. How often one hears a fracture patient say that some particular doctors or nurses seem to be

the only ones who can make his broken leg comfortable. Just as the horse instinctively and immediately knows an experienced rider, so the patient quickly judges the doctor's ability by the manner in which his limb is grasped and handled. This has much to do with the gaining or losing of his confidence, aside from its effect on his comfort. Hurdle fractures with a light but firm touch remembering that there is a marked difference between a light touch and an indecisive one and between a firm grasp and a rough one. In addition to this light, firm fracture-touch, cultivate a smooth and non-jerky manner of handling these cases, and keep the fragments in line by gentle traction while doing so.

In fractures of the shaft of the femur a common error is to insert the Kirschner wire or Steinmann pin a little too far above the condyles. This results in forward angulation at the site of the fracture due to the proximal end of the lower fragment of bone being drawn forward. Pass the wire or pin as close to the condyles as possible. If the clinical signs and x-ray show it to be too far away, lose no time in passing another closer to them. A brief study of the x-ray film will show how much nearer the condyles to insert the new pin.

Another frequent cause and cure of forward angulation of a fractured femur is the flexion or extension of the knee joint. This has much to do with the raising or lowering of the proximal end of the lower fragment of the fractured bone. Flexion releases the pull of the gastrocnemius and plantaris muscles and permits the bone to tilt forward, while extension puts these muscles on the stretch and causes them to pull this fragment of femur downward and backward.

The position of the knee-joint likewise has much to do with forward angulation of the fractured tibia. Flexion causes the quadriceps extensor to pull the proximal fragment of this bone forward while extension relaxes this muscle and causes the ham string muscles to pull the tibia backward.

Proper alignment of the lower extremity whether the fracture be above or below the knee is obtained by the elementary procedure of sighting from the great toe over the patella to the anterior

superior spine of the ilium. These three landmarks should be in a straight line. Any lateral or medial deviation from this line can be readily detected. Anterior or posterior bowing or angulation is detected of course, by viewing the limb from the side at its own level and at a distance away of about three feet.

The *huel* probably causes a patient with a fracture of the lower extremity more annoyance during his weeks of treatment than any other one thing. It plays a big part therefore, in his comfort, psychology, and general reactions during this trying time. Pressure and strain are the main reasons for this discomfort. Little changes in the padding under and about the heel, and slight shifting of the position of the foot or leg will usually bring prompt relief. Simple as these little details are they can not be done in a hurried or haphazard manner if they are to succeed. Here, in particular, the fracture-towel comes into daily play.

Our observations have led us to believe that opiates and sedatives are absolutely essential to good fracture work. Fortunately, opiates are seldom required or used after the first two or three days but sedatives are often indicated for weeks. Small doses repeated as needed work the best and enable the patient to relax and cooperate. Because the fracture may not be severe or the patient's condition critical there is often the tendency to feel that he does not require sedation and although this may be true the possibility should be kept in mind. These patients are specially prone to occasional hours or days of nervousness and irritability when they need help.

Fluids are as essential in fracture cases as in any other class of patients. The not seriously injured person will see to it that he gets sufficient fluids but not so the aged and unconscious or badly hurt individual. Therefore in these cases always watch the tongue and keep it moist. The dry tongue is a danger signal yet takes only one second to discover. It is the only sure way to determine if the patient is receiving sufficient fluids. Administer enough fluids orally, rectally, subcutaneously or intravenously to make the tongue moist and to keep it that way.

Open reduction is seldom necessary!

Fortunately, good results can be obtained in ninety-nine per cent of fracture cases without recourse to an open operation. This is special work and should be avoided whenever possible, and then performed only by some one with ability and experience.

No attempt has been made in this paper to describe or advocate any of the different direct and specific methods of treating fractures. This is because, *first*, the principles are the same regardless of which method or apparatus is used, *second*, we have come to believe that it is the indirect factors, both mechanical and psychological, that are as often responsible for an unsatisfactory result or dissatisfied patient as is the so-called "setting of the bone." Needless to say, the proper attention and management of both the direct and indirect factors are essential for the best results.

The following elementary and fundamental precepts and principles in the treatment of fractures in general and of the long bones in particular are of proved value and mandatory for success.

1 Immobilization and traction should be applied to the fractured part both before and during transportation of the patient.

2 Bring the lower fragment of a fractured long bone into alignment with the upper fragment, as the upper is the more difficult to manipulate. Do not attempt to keep them in proper alignment by external pressure but elevate the leg or arm and flex the thigh and knee or shoulder and elbow enough so that the fragments fall into line naturally when traction is applied.

3 Be sure the traction is free-running and constant at all times. This both sounds and is simple but requires checking and re-checking by those in attendance for it is one of the most frequent sources of error. See to it that the foot support, the spreader, the pin, the rope, and the weights are free and clear and not hindering the traction. It is amazing how often this happens and how often it is overlooked.

4 Watch for overextension as well as underextension of the fragments. The former is particularly apt to occur in cases

where skeletal traction is used. It is well not to apply more than fifteen pounds pull to a fracture of the femur, nor more than seven pounds pull to a fracture of the tibia and fibula unless examination forty-eight hours later shows it is needed.

5 Guard against pressure and its accompanying sores.

6 Be sure the plaster-of-Paris casts are anchored at both ends. For example, when used in fractures of the femur a spica cast from the toes to the costal margin is required until firm union has taken place. To use smaller casts means a poor result or failure.

7 Don't become impatient. Nature cures fractures, we help.

Summary

1 Fractures have become so prevalent throughout the United States that the general surgeons and general practitioners affiliated with the small hospitals are obliged to treat most of these cases.

2 The object and hope in writing this paper is to be of help to any of these doctors whose training has been inadequate in this type of work. We have enumerated, therefore, what we have found from eighteen years of observation to be the commonest pit-falls and sources of error in the treatment of fractures.

3 It must be admitted that some doctors have a natural inaptitude for this work, and should desist from it. The others can obtain a high percentage of satisfactory results if they will study and *work* and *think*, and ask for help when they need it.

4 The indirect and psychological factors are of especial importance, for fracture cases are of long duration.

5 The treatment of fractures is, and always will be, a perfectly logical procedure with nothing mysterious about it.

6 The small hospitals can and must do good fracture work!

3 MANSFIELD AVE

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DISTRICT BRANCH MEETINGS

FIRST—New York (New York Hospital)
November 17
SECOND—Garden City
November 16

Despite previously published dates in this JOURNAL, these given here are correct.

THROMBOCYTOPENIC PURPURA

Nonsurgical Treatment

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It is generally conceded that splenectomy done by an experienced surgeon in carefully selected cases of essential thrombocytopenic purpura is a highly effective form of treatment, particularly as far as the subsidence of bleeding is concerned. One must admit, however, that some patients continue to bleed after operative intervention and that splenectomy done in the acute stage of the disease has been attended with a high mortality rate—approximately eighty-seven per cent in Whipple's series¹. In my series of twenty two cases, five splenectomies were done in the acute stage. Two patients died of cerebral hemorrhage after splenectomy (autopsy did not show the presence of accessory spleens) another died one hour after the spleen was removed, apparently from shock, and two continued to bleed for some time after operation, but eventually recovered (Table I).

Brown and Elliot² recently reported a series of ten chronic cases in which splenectomy had been done. Although recovery followed the operative intervention in every instance, seven patients had severe postoperative complications such as postoperative shock, acidosis massive collapse of lung, wound disruption and severe nasal hemorrhage. In Griffin's series³ four patients had a considerable amount of bleeding after splenectomy, one required eleven transfusions. Thus it is evident that, even under the most favorable circumstances, splenectomy is not without danger.

In bone-marrow studies done by the author in 1933,⁴ in two cases of thrombocytopenic purpura which failed to respond to splenectomy, no megakaryocytes were found. At that time the theory was advanced that there are perhaps two types of thrombocytopenic purpura, (1) The aplastic type in which there is a partial aplasia of the bone-marrow with a resulting decrease or absence of megakaryocytes and (2) the splenic type in which

the production of platelets is disordered or depressed by reason of a splenic inhibitory factor, or increased destruction of platelets occurs because of hypersplenism. Unfortunately, the number of cases in which bone-marrow studies have been made is small. Future studies may provide evidence for or against the views expressed, but for the time being I think that the cases in which partial bone marrow aplasia with an absence of megakaryocytes is found should first be treated conservatively and splenectomized only after thorough conservative treatment has failed to bring about a remission. The opinion was also expressed then and is reiterated here that bone-marrow studies should be made in every case before splenectomy is decided upon.

It should be emphasized, *first* that the disease sometimes clears up completely even without treatment and the acute hemorrhagic tendency may cease as suddenly as it began. *second* that, as Wintrobe and his coworkers⁵ have expressed it, "there is no adequate evidence for considering splenectomy as specific treatment for purpura hemorrhagica and it is the most radical of the methods for the symptomatic treatment of this disorder." They also stated that with medical care, recovery from an acute episode is the rule rather than the exception. It is suggested therefore that the patient be treated conservatively through one or more attacks to determine the severity and frequency of bleeding. It should be kept in mind, however, that death may occur while conservative treatment is being carried out, death usually being due to cerebral hemorrhage.

The various methods at one's disposal for the medical treatment of the acute case of purpura hemorrhagica are

Repeated transfusions. Dangerous hemorrhage can in the majority of cases be controlled at least temporarily by transfusion. Indeed, careful observers—e.g., Jones and Tocantins⁶ and Tidy⁷ of Eng-

land—claim to have cured about fifty per cent of their cases by means of repeated transfusions given at intervals of from four to five days. In addition, transfusions are of benefit to the anemic patient. Tidy is of the opinion that it is better to inject small quantities of blood repeatedly, unless severe hemorrhage preceded the transfusion. My own experience shows that three cases were apparently cured by means of repeated transfusions. Repeated transfusions were given to eleven other patients, but other methods of treatment had to be employed because of continued bleeding. On the whole it is advisable to begin treatment in every case with

TABLE I—SUMMARY OF METHODS USED IN 22 CASES

Method of Treatment	Number of Cases	Results	
		Immediate	Remote
Splenectomy	5	3 died (2 of cerebral hemorrhage) (1 of postoperative shock) 2 recovered	
Transfusion	14	3 recovered 11 required other treatment (5 were splenectomized)	2 cases treated with transfusions only have remained well after ten years
Vitamin C	3	No improvement	
Injections of antivenin	1	No improvement	
Injections of horse serum	3	No improvement	
Sesame oil (T-Factor)	3	No improvement (1 had no increase in platelets) (2 required transfusions)	
Snake venom	7	6 improved 1 died of cerebral hemorrhage	5 cases, followed 1-4 years, have remained well
Total	36*		

* This discrepancy is due to the fact that more than one method was employed in some of the cases.

repeated transfusions if anemia due to severe bleeding is present, and to use other methods if the bleeding is not controlled.

Ce-Vitamic Acid Therapy Injections of Ce-Vitamic acid in 150 Mg doses a day have been recommended by Boger and Schroeder.⁸ They believe that this treatment reduces capillary permeability, has a favorable effect on the bone-marrow with a resulting increase in the number of platelets, increases the albumin content of the blood, and favors clot formation. These results, however, could not be duplicated by other observers. Wright and Lillienfeld⁹ treated three cases with no favorable effects. One case in my series failed to respond to Ce-Vitamic acid when given orally. Two other cases were treated with large amounts of orange juice with no benefit. Substantiation of Böger and Schroeder's results are necessary before

this method of treatment can be recommended.

Effect of Roentgen ray irradiation on Platelet production Mettler, Stone, and Purviance¹⁰ treated four cases in the acute stage of the disease. All four patients showed an increase in the platelet count observable twenty-four to forty-eight hours after treatment. Eight hundred to twelve hundred Roentgen units were given with a resulting increase in platelets from 40,000 to 300,000 and a simultaneous cessation of bleeding, a decrease of platelets with a return of bleeding followed the interruption of treatment in one case. In two other cases followed from three to seven months the platelet count remained constantly high. In 1932 Hippe and Kochman¹¹ treated seven children with repeated Roentgen ray irradiation of the splenic area. They, too, reported immediate hemastasis and a rapid increase in the number of platelets after treatment. Recently Rudisill¹² reported seven cases of essential thrombocytopenia which were cured by Roentgen ray irradiation of the spleen. In every case the symptoms disappeared and the platelet count increased from 20,000 to 280,000 or 290,000. Indeed, Rudisill considers Roentgen ray irradiation a specific therapeutic agent in primary or uncomplicated thrombocytopenia with hemorrhage, either with or without purpuric skin manifestations. This is not a new method of treatment, Finklestein¹³ discussed this procedure in a monograph on the purpuras in 1921. He considered it an uncertain and possibly dangerous method of treatment. None of the cases in this series were treated with Roentgen ray irradiation.

Other methods of treatment, e.g., the injection of adrenalin, calcium, various protein substances such as milk, peptone, antivenin or horse serum, are too numerous and too uncertain in their results to warrant extensive discussion. Cases have been reported, however, in which a temporary rise in platelets, sufficient to tide an acute case over a crisis, has occurred following the injections of horse serum or peptone. Horse serum was used in three cases in this series with no benefit; antivenin was used in one case without result.

"Fat Soluble T-factor" of Schiff Several years ago Schiff observed a striking increase in the number of platelets in patients suffering from thrombocytopenic purpura who were fed a diet rich in lipides. Experimentally Schiff and Hirschberger¹⁴ found it possible to produce with regularity an increase in the number of platelets in normal children and in young rats by feeding a fat soluble factor until then unknown, which Schiff named the "Fat Soluble T-Factor."

This factor is not vitamin A it is absent in cod liver oil and in olive-oil but is present in sesame oil. Eight to ten drops a day are sufficient, according to Schiff, to bring about a marked increase in the platelet count.

Unfortunately, these results could not be duplicated in three cases in this series which were treated with ten to twenty drops of sesame oil a day. In no case did an increase in the thrombocytes or a cessation of bleeding occur. However, in view of the extraordinary results obtained by Schiff and Hirschberger and the simplicity of the treatment, further use of this substance is advisable either to confirm or reject the T factor as a valuable method of treatment of thrombocytopenic purpura.

Since 1933 seven cases have been treated with injections of a 1:3000 solution of moccasin snake venom. In six the results were satisfactory. Originally the snake venom was given in small doses intracutaneously¹² in the last four cases $\frac{1}{2}$ to one c.c. was injected subcutaneously at two to five day intervals.

In five cases bleeding petechia and ecchymotic areas disappeared in from seven to eighteen days. In four cases the capillary resistance test which had been strongly positive at the first examination became negative after two months. Three children have been followed since the latter part of 1933 and have remained well. The bleeding time has been reduced and the number of platelets has increased in all cases. The rise in platelets however is probably not the result of the snake venom treatment since spontaneous increases occur. The good results are perhaps due to a decreased capillary permeability since the snake venom achieves its results by acting directly on the blood vessels.

One patient had a severe hematuria, two had repeated nose bleeds. The child whose blood showed the highest platelet count (78,000), had the severest nasal hemorrhage and required one large transfusion (400 c.c.) on admission to the hospital and subsequently two smaller ones. It is interesting to note here that this child's bone marrow showed many large megakaryocytes. The bone marrow in two other patients who at the beginning of treatment had no or few platelets in the blood showed few or no megakaryocytes; however the bone-marrow of one infant showed numerous large megakaryocytes although no platelets were present in the blood. Active bleeding stopped in all patients after the fourth or fifth injection of snake venom. Not every case treated with snake venom however, responds in this manner. Peck and Rosenthal¹⁸ reported ten acute cases treated with snake

venom injections eight recovered completely and two died—mortality rate of twenty per cent. One case in this series also failed to respond to snake venom injections and eventually died of cerebral hemorrhage. It is evident however, that the number of cases benefited by this method of treatment is sufficiently large to justify its use. The routine method of treatment for the acute case of thrombocytopenic purpura admitted to my service is as follows.

On admission the patient is given a fairly large transfusion if bleeding has been severe and anemia is present. Whole uncitrated blood is used. If only petechiae and ecchymotic areas are present and the hemoglobin content is not low no transfusion is given. In either event 1 c.c. of dilute moccasin snake venom 1:3000 is injected intracutaneously. The appearance of a hemorrhagic area about the site of injection one hour later is confirmatory evidence of the presence of a purpuric state. This is a positive Peck test.¹⁷

Clinical improvement is shown by a gradual change from a positive to a negative reaction. If the ecchymotic areas resulting from the intracutaneous injections of snake venom persist the treatment will most likely fail to produce the desired results. After the initial intracutaneous injection $\frac{1}{2}$ to one c.c. of diluted snake venom is injected every two to five days. If after ten to fifteen injections the patient continues to bleed the capillary resistance test remains positive and the patient's general condition is good, other conservative methods as for example the T factor of Schiff or Roentgen ray irradiation of the spleen should be tried.

With these four methods it is possible to bring about a remission in the majority of cases. Many cases are on record in which there was no recurrence after one attack; this is particularly true in males. If however the bleeding is severe and shows no evidence of diminishing in intensity with the treatment outlined above the spleen should be removed. Splenectomy is also indicated if severe or moderately severe attacks recur frequently. Adequate transfusion should precede the splenectomy in these cases. Doan and his coworkers¹⁸ also feel that splenectomy is not absolutely contraindicated in properly selected cases in acute crisis provided adequate preoperative blood transfusions are given. It must be emphasized again however, that splenectomy is dangerous in the acute case associated with severe bleeding and that the

decision to operate should be arrived at only after careful deliberation

For the chronic cases, the method of choice is splenectomy. However, it may be necessary in the future to modify this opinion, since Peck and Rosenthal¹⁷ in

a recent publication reported distinct improvement in seventeen of twenty-one chronic cases treated with snake venom in only four cases was splenectomy advised

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SOME TOXIC MANIFESTATIONS FOLLOWING THE USE OF SULFANILAMIDE

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The introduction of sulfanilamide into clinical medicine promises to be a major contribution to the treatment of many infectious diseases. In some respects it fulfills our most extravagant hopes when it is considered that it is effective when orally administered and that it probably possesses but a low toxicity and is not expensive. In a recent publication, attention was called to its usefulness in stubborn meningococcus infection.¹ Many others have similarly reported good results in a great variety of bacterial infections including those with bacillus colon, gonococcus, and, of course, streptococcus hemolyticus. By far the largest number of reports both in this country and elsewhere concern themselves with the favorable results obtained by the use of this drug. More recently, however, papers and clinical reports have appeared which stress both major and minor toxic manifestations and a note of caution is introduced.

It will be some time before proper evaluation of the merits of this drug will be possible inasmuch as the clinical use is widespread and over one hundred papers have already appeared in the literature. One will have to check and compare personal observations which are necessarily limited against a voluminous literature

It is, therefore, desirable to have both favorable and unfavorable results recorded as completely as possible in order to arrive at conclusions based on all available evidence.

CASE 1 Toxic dermatitis with hyperpyrexia and chills following moderate doses of sulfanilamide. D. K., age fifty-five, had been suffering for about two years from a mild degree of prostatic obstruction with an occasional pyuria.

About ten days prior to the present illness which began August 7, 1937, he was given twenty gr of sulfanilamide daily taken in four divided doses. This was done with a view of overcoming a then existent mild pyuria without chills or fever. The day before the onset he exposed himself to the sun for several hours. About fourteen hours after this sun bath he was awakened in the middle of the night with a severe chill followed by a sharp rise of temperature to about 104.5° F. Within the next twenty-four hours he had another chill with a fluctuating temperature between 101 and 105.4. The same course of irregular temperature and chills was followed over the ensuing three days. The chills were severe and occurred at irregular intervals and lasted twenty to thirty minutes.

The associated symptoms were not severe. Between chills the patient felt comfortable and was not toxic except at the height of

the temperature during the second day when he was somewhat delirious and hard to control.

At no time was there any tachycardia, exhaustion or peripheral circulatory failure. Vomiting occurred but once. At the end of the third day, a maculopapular rash developed over most of the body especially the exposed parts which were well-tanned. Over the knees and lower thighs as well as over the extensor surfaces of both forearms the rash coalesced and assumed a more violaceous appearance. Here, too, some of the papules were rather cone shaped pointed and looked red and angry, on a smooth glazed shining base. Itching was not a pronounced feature at that stage. There was a slight sub-ecteric tint to the sclera. In the absence of leukocytosis pyuria sore throat pulmonary signs or other evidences of infection the possibility of a toxic dermatitis presented itself. The history of medication fortified me in this opinion and all medicaments were stopped. The fever subsided in about three days and the rash likewise in about a week leaving some pigmentation which lasted for about ten days. The combination of dermatitis chills, and fever in one patient seems worthy of report in view of the small doses of the drug used.

CASE 2. J. G., male, had been suffering from an ill-defined sinus syndrome superimposed on a migraine and vasomotor rhinitis. A septum removal and a turbinectomy was decided on as a last resort. Within twenty-eight hours following the resection of the septum and turbinate, a rise of temperature and chilliness occurred. Twenty hours later both ears became involved with redness of both drums marked pain and considerable bulging of the right ear drum. The temperature rose to 103° F. the pain in the right ear became extremely severe and the following day a follicular tonsillitis made its appearance. Sulfanilamide medication was introduced and was maintained for about five days. The dose was moderate not over thirty five gr. per diem.

About three days after the introduction of the sulfanilamide the patient began to com-

plain of dizziness and vertigo. He could not raise his head from the pillow and developed a definite ataxia. The Romberg sign was positive and he was unable to walk with his eyes shut. There was a distinct tendency to fall to the left and slight past pointing on the left side was also present. No nystagmus could be made out and no other neurologic symptoms made their appearance. Cyanosis however was present but mild.

The sulfanilamide was discontinued as soon as these symptoms appeared. The vertigo improved gradually but the otitis media became active again and the temperature began to rise. Sulfanilamide was resumed and thirty-six hours later dizziness and vertigo reappeared and became very much more marked in the following two days. The drug was again stopped and the vertigo disappeared to a very large extent. Another flare-up in the nasopharynx took place with a third rise in temperature and another attempt at sulfanilamide medication was resorted to. After fifteen gr. of the drug was given it produced a marked vertigo which gradually improved with the withdrawal of the drug. The vertigo became very mild but has not completely disappeared to date. On two separate occasions five gr. of sulfanilamide aggravated both dizziness and vertigo and produced a staggering etc., especially with the eyes closed.

Here a relatively small dose of sulfanilamide produced cyanosis, vertigo, and ataxia. A positive Romberg was present. Dysequilibrium repeatedly became marked on very small doses of the drug.

Summary and Conclusions

Two cases are presented showing various toxic manifestations the result of sulfanilamide. Close medical supervision of the patient is absolutely necessary when sulfanilamide is used otherwise serious complications may be overlooked.

1882 GRAND CONCOURS

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(Continued from page 1386)

may be most misleading since the disease processes are often so localized as not to give rise to a systemic reaction that can be detected by serologic methods.

In the light of this statement the following method of reporting the results of the serologic tests should give the physician complete information concerning the reactivity of the patient's serum, the significance of which if interpreted by him in the light of

repeated examinations should prove a helpful guide in diagnosis and the management of the case. Titers of 1.5 or less are reported no reaction. In all other instances the titers observed are reported. On the basis of the analysis of repeated tests, the numerical values of the titers are reproducible with a maximum estimated error of 25 per cent. Thus in general, where fractions are recorded they can be evaluated as the nearest whole number.

SPONTANEOUS RUPTURE OF SPLENIC ARTERY

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Rupture of the splenic artery must indeed be a rare occurrence, and more so where no history of direct trauma is present. A search of the literature of the past decade revealed no report of a similar case. I am therefore reporting this case of spontaneous rupture of the splenic artery which revealed no disease of this vessel on pathological examination.

W. S., age twenty-two, was admitted to the Wyckoff Heights Hospital on May 6, 1937. His chief complaint on admission was pain in the abdomen of two days duration. Except for the immediate history, there had never been any abdominal complaints or symptoms.

The patient's occupation was that of a stove assembler, work which did not require heavy lifting. However, he handled large quantities of insulation material composed mainly of dry glass particles. This occupational dust produced severe bronchial irritation, resulting in paroxysms of coughing during and after working hours. On the morning of May 5, while at work, the patient had a severe coughing spell and felt a sharp pain in the midepigastrium, which later spread to the left lower quadrant and then to the right. The pain was continuous, throbbing in character, and aggravated by deep respiration.

The patient left his work and remained at home for the remainder of that day. He felt sufficiently well to attend a movie that evening, but the pain recurred with such severity that he was forced to return home. At two A. M. the pain was so intense, that the patient reported he wanted to "punch his fists through the walls." He was seen at this time by a physician who administered a sedative. The following day there was no relief and the patient was admitted to the hospital that evening (May 6).

Examination revealed a well-nourished, well-developed, white, young male adult, of poor color. His temperature was normal, the pulse rate was 120, but of good quality. The abdomen was of doughy consistency throughout. There was exquisite tenderness in the midepigastrium and rebound tenderness was elicited over the entire abdomen. A fluid wave was present.

The leukocyte count was 14,300, with a differential count of eighty-five per cent

polymorphonuclear leukocytes, eight per cent small lymphocytes, and seven per cent large lymphocytes.

A flat plate of the abdomen revealed no subdiaphragmatic free gas.

The preoperative diagnosis was perforated gastric ulcer.

Operation. A high right rectus incision was made, later being prolonged to the left upper quadrant at right angle to the upper end of the primary incision. The abdomen was filled with fluid blood, with some clotted blood in the mesentery near the spleen and in the splenic fossa. Three liters of blood were aspirated and thirty lap sponges were saturated during the exploration for the source of bleeding. During the operation the patient received intravenously 500 c. c. of saline and 750 c. c. of ten per cent acacia.

The stomach and liver were normal. No fluid was felt in the lesser sac. The hepatic and portal vessels were intact. The small intestines and mesenteric attachments were examined and no bleeding points or other pathology were found. The spleen was normal to palpation, but the impression gained was that more blood was welling from the splenic region than elsewhere. The spleen was exposed and brought into view.

At the splenic hilus, the lower of two visible branches of the splenic artery, was seen spurting blood through a small opening in the vessel with each arterial pulsation. There was no visible dilatation or tortuosity of this vessel. After ligation of the pedicle, the spleen was removed.

Twelve hours postoperatively, temperature was 103° F, pulse 134, respirations forty and blood pressure 130/70. The day following operation, he received 300 c. c. of blood. The temperature gradually subsided and was normal on the eighth postoperative day. The course in hospital was of progressive convalescence and the patient was discharged on the twentieth day after admission.

Pathologic examination of the spleen by Dr. M. E. Marten revealed an organ normal in size, shape, and markings. There was a moderate amount of hemorrhage under the capsule. On section of the organ, no pathology of the tissue or vessels was found.

To date the patient presents a normal blood picture. He is in good health and is working steadily.

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RETROGRADE INTUSSUSCEPTION OF CECUM INTO ILEUM

LML S GOODYEAR M D, Kingston

Retrograde intussusceptions are said to occur only in the throes of death, and then as a rule only in the small intestine. Wagensteen¹ states that agonal types of intussusception are usually of the ascending variety. They are noted as being very short and frequently multiple intussusceptions, which show no areas of inflammation and are easily reducible. Lockhart Mummery in Lewis' report,² states that such types of intussusceptions occur only during death or as a result of asphyxia and that they are not met with in practice. Fitzwilliams³ in a study of 1,000 cases of intussusception, states that retrograde intussusceptions are quite commonly seen in the postmortem room, but are very rarely confronted during life. Six cases of this type are listed in the report. One case (Harrison *Dublin Med Press* 1845) not in the small bowel where the descending colon was invaginated into the transverse colon is of interest. Perrin and Lindsay⁴ in a study of 400 cases of intussusception treated in the London hospitals from 1903 to 1920 list two cases of retrograde intussusception but neither involving the large bowel or cecum. Barker⁵ in a report on intussusceptions at the University College Hospital (London) from 1877 to 1897 inclusive, finds none of the ascending type. Kausch⁶ observed an instance of ascending invagination of the intestine and collected forty-one similar instances from the literature. In the reports noted the cases were not met with during life and no case of invagination of the cecum into the ileum was recorded.

Retrograde intussusceptions, however, do occur during life but are quite rare. Lewis² describes a case of this type. Buckley⁷ reports a case with superimposition of a retrograde upon a direct intussusception. Occasionally in life intussusception may occur at a gastroenterostomy opening.¹ In reviewing the literature the author has failed to find a case of intussusception of the cecum into the ileum at postmortem or during life. It is felt that the present case of retrograde invagi-

nation of the cecum and appendix into the ileum should be reported into the literature as a unique case during life.

NW was admitted to Benedictine hospital the afternoon of August 9 1936. The infant was a robust healthy breast fed female. Birth had been normal occurring March 31 1936.

In the history of onset the mother noted that the child awakened with cries as if in pain about 8 A M. The crying quieted in a few minutes and the child went back to sleep. The attack recurred with marked pallor and again subsided in a few minutes. The mother nursed the baby but the feeding was promptly vomited. The mother then consulted a physician of the local town. An enema was administered with a hemorrhagic tinged mucus in return after which an x ray for foreign body was made and the child sent to a hospital.

On admission to the hospital the same afternoon the diagnosis of intussusception was self-evident with the sausage-shaped tumor in the right lower quadrant. Operation was performed at once without general anesthetic. A sugar tit sedative and a little local novocain infiltration were used. On entering the peritoneal sac, the mass was located and found to consist of a greatly distended engorged terminal ileum about ten inches in length. The distal part of the mass was formed of a constricted neck of ileum surrounding the proximal part of the ascending colon. The intussusceptum would therefore be found to consist of the distal ileum with the ileocecal valve the larger cecum and appendix telescoped into the smaller ileum.

The intussusception was reduced with some difficulty by milking out the mass. The colon was freed out then the appendix stuck out like a sore finger much congested followed by the cecum and ileum. The child had a retrograde intussusception. The cecum and appendix, though somewhat congested, reacted well and appeared viable, so that simple reduction was considered sufficient.

The child did well apparently until the fourth postoperative day when it developed paralytic ileus and died. On postmortem the pathologist found a thrombosis of the vessels of the cecum and appendix with gangrene of the cecum.

Comments

1 Retrograde intussusceptions occur usually in the throes of death, and as a rule only in the small bowel

2 Retrograde intussusceptions may rarely occur in the large bowel

3 Retrograde intussusceptions may rarely occur during life

4 Retrograde intussusceptions of jejunum through a gastroenterostomy occasionally occur

5 A unique case of retrograde intussusception of the cecum, appendix, and distal portion of terminal ileum into the more proximal portion of terminal ileum has been found and reported

Addenda

Since writing this contribution, it is noted that Todyo⁸ mentions three in-

stances of retrograde intussusceptions, one particularly remarkable being retrograde, multiple, super-imposed, and recurrent. This case occurred in a twenty year old male with incarcerated left inguinal hernia. Intussusceptions occurred at ten different places in the small bowel and were mostly retrograde. Similar recurrence of intussusception developed forty days after the first operation.

8 PEARL ST

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SLIT LAMP PRINCIPLE

Its Use as a Simple Aid to Inspection in Physical Diagnosis

NATHANIEL E REICH, M D, Brooklyn

Service of Dr C H Greene, Kings County Hospital, Dr J Hamilton Crawford, Director
Long Island College of Medicine Division

A careful search through textbooks and literature fails to produce mention of an aid of marked simplicity in physical diagnosis. Its ease of application and the valuable information it may help disclose will give it significance in an examiner's armamentarium. It is of special diagnostic aid in certain incipient lesions where an earlier diagnosis might lend itself to more effective therapy.

Slight pulsations, protrusions, or vermicular movements, which might otherwise escape detection during inspection by ordinary daylight or by diffuse non-localizing lights ordinarily employed, frequently may be delineated with a concentrated beam of light with converging rays.

A slit or cone of light is directed tangentially or obliquely close to the body over the area to be inspected. It brings out details and is freer of confusing shadows. The result is accentuated in an unlit or darkened room. Such a focused light beam is cheaply and readily avail-

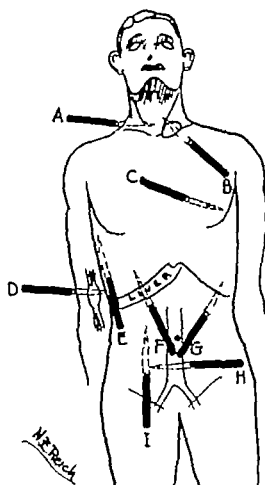
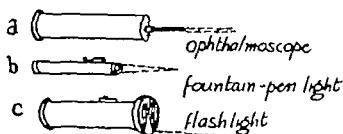
able to every physician in any of the following types.

It may be produced with an ophthalmoscope without the head attachment which throws a fine slit of light effectively (Fig 1-A), or with an ordinary fountain-pen type of flashlight with an inexpensive focusing lens (Fig 1-B), or with any hand battery flashlight whose plain glass lens is completely covered with adhesive except for a narrow segment with a ten degree angle (Fig 1-C). Such a light, obliquely pointed (Fig 1), accentuates every depression and makes every pulsation a magnified moving shadow. As the mass contracts, the shadow decreases in length and increases again on re-expansion.

This makes unnecessary the darkening of all windows and assuming an accurate position to observe Litten's diaphragm phenomenon. The light beam deepens each intercostal depression during expiration and shows the "peeling off" process more clearly. A case of hemangiosarcoma

of the sternal end of the clavicle was more easily differentiated from a malignancy of the thyroid by the presence of faint pulsations, employing this method

TYPES OF LIGHT BEAMS



Direction of Various Beams

- A Tracheal tug aneurysms
- B Pulsating sarcomas
- C Cardiac pulsations
- D Arteriovenous aneurysms
- E Litten's phenomenon empyema
- F Hepatic pulsations (Aortic and tric. insuff.)
- G Gastric peristalsis
- H Aortic and epigastric pulsation
- I Ladder pattern (Intest. obstruct.)

Aneurysmal bulges and pulsations are more readily discernible. Smaller pulsations of the intercostal or episternal spaces in aortic aneurysms or of the larger vessels such as the carotid, are magnified by the shadows cast. A tracheal tug is more easily visualized. The rate, rhythm and force of cardiac contractions, especially when the heart is enlarged, can be studied to better advantage with the slit of light thrown tangentially at the apex even before a stethoscope is applied.

Epigastric pulsations due to cardiac dilation are noticed more readily. It enables us to see more clearly the pulsations occasionally produced on the affected side of an empyema. Hepatic pulsations occurring during systole in tricuspid or aortic regurgitation may occasionally be exhibited through thin abdominal walls. The presence of arteriovenous aneurysms may be magnified in an earlier stage and operative interference made much simpler. Inspection of many normal and abnormal arterial and venous pulsations may be made more easily.

In adhesive pericarditis, the movement occasioned by Broadbent's sign is made more visible.

Gastrointestinal peristalsis may be studied in greater detail and frequently the "ladder pattern" may be uncovered in intestinal obstruction. In thin-walled or emaciated individuals with pyloric obstruction gastric peristalsis may be seen to pursue a direction from left to right.

It must be emphasized that inspection with a beam of converging artificial light rays on the principle of the slit lamp is a physical sign presented as an adjunct to ordinary inspection which can prove valuable in uncovering a number of disease conditions earlier, by an accentuation of the various shadows produced.

75 OCEAN AVE.

The first meeting of the Rockaway Medical Society was held at the Inwood Country Club on October 20. A large representation of local physicians was present. After the meeting a dinner was served, allowing a friendly chat and renewal of old acquaintance.

The guest speaker was Dr. Herman O. Mosenthal, consulting physician at Bellevue

Post Graduate and the N. Y. Infirmary for Women and Children. His subject was "Insulin Protein in the Treatment of Diabetes."

A campaign of education to combat pneumonia is being pushed by the medical and public health forces in Middletown.

CONTACT IMPLANTATION OF CANCER

Carcinoma of Lower and Upper Lips

HERMAN CHARACHE, M D , *Brooklyn*

*From the Brooklyn Cancer Institute, Dr Ira I. Kaplan, Director, Division of Cancer,
New York City Department of Hospitals*

The transmission of cancer by direct contact is difficult to prove, although a number of cases have been reported. Von Bergmann¹ in 1887 presented a case of carcinoma of the upper and lower lip before the Berlin Medical Association to illustrate the so-called "infectious character of carcinoma." Hahn² removed some carcinomatous nodules from the skin of a woman with recurrent mammary carcinoma and implanted them into a small wound made in the skin of the mammary region of the opposite side of the body. These nodules grew progressively larger until they reached the size of a cherry. The patient died from general metastasis some weeks later. Histologically these tumors were the same as the primary growth. Cornil³ implanted a fragment of cancer tissue of a recently removed breast into the opposite breast, and in the course of several weeks it grew into a small tumor. Williams⁴ reported a case of a sixty-year old woman who developed an epithelioma of the thigh from continually coming in contact with an ulcerating epithelioma of the corresponding side of the opposite thigh.

Examples of contact implantation from the uterus to the vagina have been reported by Thorn,⁵ Fischer,⁶ and others. Three cases, proven histologically, have been found in our own institution suggesting such transmission of cancer, however, contact implantation could not be definitely proven.

Welsh,⁷ writing on the subject of contact spread of cancer, remarked "The cause of this local extension of the cancer process by direct contagion is quite unknown. All that we can say is that it appears to be due to the transference of some malignant influence or stimulus from a cancerous cell to an adjacent non-cancerous cell, whereby the latter becomes cancerous also."

Butlin⁸ emphasizes the practical importance of contact metastasis as a possi-

bility of a wound infection in operations for cancer. He states:

Many cases have been recorded in which there was reason to believe that recurrence was due to implantation during the operations rather than to imperfect removal of the diseases. The only cases (contact implantation) which should be accepted are those which fulfill the following conditions. The disease must be of the same variety in the primary carcinoma and in the reputed contact cancer. The identity of the disease must be proved by microscopical examination. The primary disease must have been exposed at the time at which contact is known to have taken place, and there should be such evidence of contact of the primary carcinoma with the seat of the reputed contact cancer as would satisfy a jury.

Willis⁹ states that transfer of a carcinogenic agent from surface to surface can neither be affirmed nor denied. However, while he admits that the lymph stream from one lip does not flow to the other, and that even should hemic dissemination have occurred, the chance of metastasis occurring in tissues precisely opposite the primary growth is negligible. Ewing¹⁰ states "Transfer of epithelioma of lower lip to upper is difficult to establish, but seems to have occurred."

Von Bergmann's case of carcinoma of the lower and upper lips, previously mentioned, is the only one found reported in the literature. The case herewith reported is another case which we believe is cancer of the upper lip due to contact transmission.

Case Report

An eighty-three year old Italian male was admitted to the Brooklyn Cancer Institute on August 12, 1936 complaining of an ulceration of both lips. Two years previous he had developed an ulceration of the lower lip which became progressively worse. Four months later the part of the upper lip that came in direct contact with the ulceration of the lower lip became similarly affected.

His past history and family history were uneventful.

Examination on admission revealed an ulceration of the lower lip measuring one by one-half cm, necrotic in the center and surrounded by a marked induration. A similar ulceration was present directly opposite on the upper lip, so that when the mouth was closed both lesions would touch each other. There was no evidence of any glandular enlargement.

The rest of the physical examination revealed only the evidence of senile arteriosclerosis and chronic myocarditis. His blood Wassermann was negative. The urine showed a trace of albumin and the blood count was within normal limits.

A biopsy was taken from both lips and reported by Dr S H Polayes, the pathologist, as follows:

TISSUE FROM UPPER LIP *Microscopical Examination* Tissue is made up of stratified squamous lining epithelium showing hyperkeratosis beneath which the cutis is the seat of sheets of atypical epithelial cells of the prickly variety with a tendency towards pearl formation. There is an associated rich inflammatory infiltration.

Diagnosis Prickle cell carcinoma

TISSUE FROM LOWER LIP *Microscopical Examination* Section shows stratified squamous lining epithelium which is the seat of para-keratosis. The underlying cutis is invaded by masses of atypical prickly cells possessing all the criteria of malignancy. There is an associated inflammatory process present.

Diagnosis Prickle cell carcinoma

Treatment was given with x ray therapy followed by implantation of radium needles in both lesions. The condition improved but the patient is still attending our clinic.

Conclusions

1 Contact implantation of cancer is difficult to prove. A number of cases are reported in the literature but only one referring to lip cancer.

2 As long as we do not know the factor or factors that cause the primary cancer, we cannot reasonably explain the factors that take part in contact cancer.

3 A case of carcinoma of the lower and upper lip is reported.

4 From the findings in this case it is reasonable to conclude that the growth on the upper lip resulted by contact implantation from the lesion on the lower lip.

75 PROSPECT PARK SOUTHWEST

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1939 "M D" LICENSE PLATES

Practicing physicians throughout the State who desire special license plates bearing the designation "M D" for 1939 are urged to apply to the Secretary of the County Medical Society in the county where they reside or have their principal office. It is requested that no applications be made to the Commissioner of the Bureau of Motor Vehicles but to the County Medical Society Secretary, whose certification of the names is an essential part of the procedure.

The names will then be transferred to the Central Office of the State Society for trans-

mission to the Commissioner.

From the Commissioner will come to these physicians by mail official application blanks which can be filled out and returned according to directions on the blanks.

It is not possible for the Committee in charge to promise special numbers. In connection with requests for low numbers the Committee wishes to call attention to the fact that all of the special numbers can be classified as low numbers.

AUGUSTUS J. HAMBRICK, M.D.
DAVID J. KALISKI, M.D.

The first joint dinner and outing of the men of the medical dental and legal professions of Schenectady was held at the Mohawk Golf Club on September 29. A

golf match was the chief event of the afternoon. Thomas H. Clearwater of New York, associate counsel for the State Medical Society, was principal speaker.

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EDITORIALS

Doubtful Comparison

A "White House spokesman" warns business to stop its "saber-rattling" against the Administration lest it create an artificial crisis analogous to the recent German-Czechoslovak situation. For more reasons than one, the analogy seems inept.

For one thing, while one "White House spokesman" was urging cooperation with government, another government official, Assistant Attorney General Charles C Pearce, was delivering a wholly unwarranted broadside against organized medicine before a group of health insurance conferees. If any "saber-rattling" is being done, there seems little doubt that the Administration has the most aggressive and unrelenting "rattlers" in its ranks. Of course, events in Europe show that a lot can be gained by good hard "saber-rattling"—but an administration which is dead set against monopolies—in medicine, especially—should not try to grab off a monopoly in "saber-rattling," profitable though it may be.

The allusion to the European crisis was unfortunate, also, on the score of peace terms. If business ceases its opposition to the Administration, what can it expect in the way of cooperation from the Government? Would it have to accept another Munich pact? The "White House spokesman" did not say

So far there seems to be no let up in the "purge" spirit, which has brought about an anti-trust action against the A M A and a reclassification of the latter's tax status so that it forfeits its exemption as an educational and scientific body and must now pay social security taxes as a business league. The analogy to the European crisis is not encouraging in this respect.

It is true that progress cannot come without cooperation between government and private enterprise. Cooperation is not a one-sided thing, however, and the government must do its share. If the Administration really desires an end of "saber-rattling," it should call off its purges and Pearces as token of a sincere spirit of conciliation.

Banishing the Bogeyman

The Special Session of the House of Delegates of the A M A has succeeded in clarifying several important issues. Advocates of state medicine have consistently sought to bring their opponents into disrepute by shouting "reactionary" whenever a valid argument is raised. Because physicians oppose compulsory health insurance, the socializers have tried to prove that medicine has resisted all beneficial change. Unfortunately the public

memory is short and it is easily misled by such tactics. The House of Delegates refreshes popular recollection with the following pertinent reminders:

"We have never taken action in opposition to government aid to the needy, whether the need was for food, clothing, shelter or medical attention."

In fact, physicians have always led in the provision of medical care for the sick poor, often at considerable sacrifice to themselves.

We have never opposed provisions in any regulation or statute to protect the government and taxpayers against fraud on the part of any one.

In the face of strong resistance from quacks and their political protectors the medical profession has waged an unrelenting battle against fraud in healing. It has never deviated from this aim in spite of the costs of regulatory legislation to physicians—in both money and time.

"The American Medical Association has never opposed the principle of group hospital insurance" in spite of repeated efforts to bring it into popular disfavor by misrepresentation of its stand on this issue. In New York State in fact organized medicine was one of the prime movers for the acceptance of this principle by the Legislature.

Lastly, "the American Medical Association has never opposed the principle of insurance *per se*. It does oppose compulsory sickness insurance, with its "political administration and manipulation of the insurance organization, devotion of a considerable portion of the funds thus derived to the payment of great numbers of employees not directly concerned with the service but intimately concerned with the maintenance of a political organization and expansion of such organizations to wield greater and greater power in the affairs of the nation. After the recent primary elections throughout the country no one can say these fears are groundless."

The American system of medical prac-

tice is not perfect, but it is steadily improving. No more can be said for any other of our social or economic institutions, whether under government or private control. As far as response to need goes, it is a matter of record that medicine has served where needed without regard for the return to itself. Morbidity and mortality tables prove that it has done its work well. "It does not conceive that any political agency can do the job with one tenth the efficiency at ten times the cost."

Increasing Value of Sulfanilamide

With our increased knowledge of the means to safely control the administration of sulfanilamide further clinical research continues to increase the scope of its usefulness. Primarily advanced as a bacteriostatic for the streptococcus group of organisms it appears, from the reports in the literature to have a far wider field of therapeutic value.

Decided beneficial results of sulfanilamide therapy in trachoma have been recorded by Loe¹ and corroborated by Griddle. Lacrimation and photophobia rapidly disappeared and where pannus existed, vision improved. The conjunctiva pale and the velvety patches and hypertrophies cleared up.

Ottenberg and Berck report two cases of suppurative pyelophlebitis with multiple liver abscesses which recovered under a regime of sulfanilamide. Shropshire² found a favorable response in the clinical picture of rectal strictures due to venereal lymphogranuloma following the administration of this drug. Appetite improved, body weight increased and tenesmus disappeared. A cessation of rectal discharge and bleeding was also noted.

It is fascinating to watch the rapidity of the advances made with this form of chemotherapy. They are of sufficient importance to warrant comment in each issue.

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*Resolution spread on the Minutes of the meeting of the Council of the Medical Society
of the State of New York held at New York City, October 13, 1938*

IN MEMORIAM

The Council takes this opportunity to express formally its sense of loss in the death of Doctor Frederick H. Flaherty, of Syracuse, New York, former President of the Medical Society of the State of New York.

Among such close associates, there is no need to extoll the activities of Doctor Flaherty, his achievements, which are so well known to us, will remain a permanent record. His surgical career began during his early professional life, and he attained eminence which was recognized both by his confreres and the public at large. He was always devoted to whatever was best for the medical profession.

He held every position which it was possible for one to occupy in organized medicine, culminating in

his election as President of our State Society.

In addition to his hospital and private practice activities, he had been Professor of Clinical Surgery at Syracuse University, and at the time of his death, was Professor Emeritus. He had been a Member of the Grievance Committee of the Board of Regents since its organization.

Although he never occupied public office, he was frequently consulted and willingly served in matters of civic interest.

Doctor Flaherty detested sham, deceit and dishonesty, and admired only frankness and integrity. However, he was tolerant and readily overlooked the foibles of his friends.

To us, his close associates, he will be long remembered as a generous and loyal friend.

WORKMEN'S COMPENSATION

MINIMUM MEDICAL FEE SCHEDULE FOR MEDICAL TREATMENT AND CARE OF INJURED EMPLOYEES

1 Section 13 (a) (Workmen's Compensation Law) requires that the employer shall provide medical care for injured employees and that the Commissioner shall establish and promulgate "a schedule for the State, or schedules limited to defined localities, of minimum charges and fees for such medical treatment and care"—etc. And further "All fees and other charges for such treatment and services shall be limited to such charges as prevail in the same community for similar treatment of injured persons of like standard of living"

2. This schedule specifically applies to Metropolitan New York comprising the following counties New York, Bronx, Kings, Queens, Richmond, Nassau, Suffolk, Rockland, Westchester

3 *Minimum Fees* Section 13 d 2 (d) requires that the Commissioner shall remove from the list of physicians authorized to render medical care any one who "has rendered medical service under this Chapter for a fee less than fixed by the Commissioner as the minimum rate in his locality" Section 13 (a) says "The amounts payable by the employer for such treatment and services shall in no case be less than the fees and charges established by such schedule."

4 Nothing in this schedule shall prevent voluntary payment of amounts higher than the fees and charges fixed therein, but no physician rendering medical treatment or care may receive payment in any higher amount unless such increased amount has been authorized by the employer or by decision as provided in Section 13-g herein.

5 Section 13-b 1 (g) Authorization of physician by Commissioner No person shall render medical care under this Chapter without such authorization of the Commissioner" etc.

Exceptions

- A Any licensed physician may render emergency care.
- B Any member of a constituted hospital staff may render care while the patient remains within the institution.
- C Technical assistants when under active personal direction of an authorized physician.

A new edition of the Fee Schedule will shortly be published by the Department of Labor for distribution to the profession.

D Registered physiotherapists under written specific direction of authorized physician

6. No claim for medical or surgical treatment is valid or enforceable unless within 48 hours (*) following first treatment a preliminary report (C 104) is filed and within 20 days (*) thereafter a complete report (C-4) is filed (Notarized)

Exceptions

Write *final* on the C 104 report if patient is discharged from treatment within 48 hours after first treatment. In these cases it will not be necessary to file Form C-4 unless specifically requested.

Write *"Final and Transferred"* to Dr _____ Address _____ when case is referred transferred or goes to another authorized physician for further care.

7 *Emergency* Claim may need to be sustained by record of details that establish fact of emergency

8 *Payment of Medical Fees* Section 13 f No physician shall collect or receive a fee from the injured claimant A hospital shall not be entitled to remuneration paid to a physician on its staff

Section 13-f (1) Fees for medical services shall be payable only to a physician or other lawfully qualified person permitted by Section 13-b of this Chapter or to the agent or to the executor or administrator of the estate of such physician.

Written Notice of Contest by the employer (or carrier) shall be filed of the amount of the bill for medical care or hospital service within 30 days after receipt of bill or the right to an impartial examination of the fairness of the amount claimed "shall be deemed to be waived and the amount claimed by such physician or hospital shall be deemed to be the fair value of the services rendered by him or it."

9 *Disagreement* "as to value of medical aid rendered under this Chapter shall be decided by an arbitration committee." Section 13-g (2)

10 *"A and A"* means Authorization and Arrangement established by agreement between the physician and the carrier or employer This designation has been applied where the extreme range of variation and complexity in the individual case

* Make triplicate record. Send one to your district office of the State Department of Labor (see back of blanks) Send one to carrier if known or employer Keep one for your record.

Due to exhaustion of the edition of the fee schedule printed by the Department of Labor, we are herewith reprinting the Fee Schedule, which has now been adopted for the entire State, as originally published in the August 15 1936 issue of the NEW YORK STATE JOURNAL OF MEDICINE.

We are also appending the latest Rules and Regulations of the Department of Labor

vidual problem renders a fixed minimum standard impractical

11 *Concurrent Fees* for two or more physicians for an identical period of care and treatment will not be allowed except when warranted by complication or noted need for assistance. When all the required care and treatment reasonably falls within the range of qualifications of one physician no other shall claim a fee, only one physician shall be in charge of a case. Fees for assistants and consultants must be justified

12 *Multiple Injuries* treated by one doctor requiring extensive surgical dressings or care are to be charged for the greatest plus one-half of the lesser fees but limited to two times the greatest fee. Superficial injuries not requiring extensive attention are not to carry cumulative charges

13 *Extensive and Unusual Dressings* When a patient requires unusual, extensive and extraordinary dressings, the cost of material (enumerated and noted in bill) may be added to schedule of fee for service.

14 *Unit Fees* When the schedule specifies a fee for a service and a period of after care, and for any reason there is a transfer of the care and treatment to a second or other physician, the stated amount in the schedule shall cover the combined fee of all

15 *Proration of Scheduled Unit Fee* When the schedule specifies a unit fee for a definite treatment and period of after care, and the patient is transferred from one to another physician, the employer (or carrier) is responsible for the amount stated in the schedule. If the concerned physicians agree upon amount of proration they shall render separate bills accordingly, in the event of no agreement or disagreement, the matter shall be settled by the Board of the local County Medical Society, or by an arbitration committee appointed by it—without cost to the contestants

16 Presence of physician during examination by employer's (or carrier's) physician, routine fee.

17 Investigation and observation (without examination) by medical inspector acting for employer (or carrier), if presence of injured employee's physician is required by carrier or employer the fee to the employee's physician shall be \$4.00

18 Attending physician's appearance at a hearing on a compensation claim, when required by referee, insurance carrier or employer, a fee of \$10.00 plus mileage (outside New York City) and a fee of \$5.00 for each additional case on which the physician testifies at the same appearance (See new Note 21)

19 Physician of "especially qualified" enrollment, who makes written opinion or testimony fee fixed by Commissioner, Section 13 (d)

20 *Penalty Fees* "When transfer of patient by employer (or carrier) has not been authorized under this Section," Section 13-a (3) (2). Same as total paid to other physicians or as determined by arbitration committee.

21 Owners of plants requiring high fre-

quency treatments may apply to the Industrial Commissioner for modification of the established fees in the medical fee schedule. The Commissioner will cause an investigation to be made in each instance and act upon the record when established. This privilege will be granted only on the assurance that it will not interfere with the employee's right of free choice of physician

22 In all cases where there is a time limit, the attending physician is to give the necessary after care required within his classification. Where exceptional conditions present themselves, the physician must obtain authorization to call in a specialist, except in an emergency.

23 In order to facilitate the prompt payment of medical bills, a discount of 5 per cent will be allowed on all medical and hospital bills in amounts of \$15.00 or over, if paid within 30 days, except on controverted cases when the 30-day limit shall run from the date that a decision is rendered finding the claim compensable

General Medico Surgical Service

Line No	Item	Fee
50	First visit including reports	\$3 00
51	Office call	2 00
52	Home call—day	3 00
53	Home call—night (if call received by doctor between 12 M to 7 A M)	5 00
54	Hospital call	2 00
55	Consultation with specialist same fee as regular visit	
56	Salvarsan, plus cost of drug	5 00
57	Tetanus Antitoxin, add cost of drug to routine fee	
58	Assistant to surgeon (In hospital with interne staff no charge to be made for service of interne or assistant)	15 00
64	Strapping of shoulder, routine service fee plus	1 00
65	Strapping of hip routine service fee plus	1 00
66	Strapping of sacro-lumbar spine routine service fee plus	1 00
67	Strapping of thorax, routine service fee plus	1 00

X RAY DEMONSTRATION OF INJURED PARTS

80	Lines Nos 83 to 102 inclusive represent fees for physicians with the "X" qualification	
81	Such x-ray demonstration of injured parts is limited to those patients who are under his general medical care	
83	Fees are for regional examination size and number of films not relevant	
84	Teeth, complete dental study	5 00
85	Single finger	2 50
86	Single toe	2 50
87	Hand (including fingers)	4 00
88	Wrist (including carpus and lower 1/3 forearm)	4 00
89	Forearm mid one third	4 00
90	Elbow (including upper one-third of forearm and supra condyles)	4 00
91	Humerus mid one-third	4 00
92	Foot (including toes)	4 00
93	Ankle (including lower three inches of leg)	4 00

94 Leg mid one-third	4 00
95 Knee (including four inches above and below joint)	4 00
96 Femur mid one-third	4 00
97 Femur upper one-third	4 00
98 Shoulder joint	3 00
99 Clavicle	5 00
100 Scapula	5 00
101 Hip joint	7 30
102 Naval bones	5 00
103 Physical therapy inclusive of any and all modalities	2 00
104 Electrocardiogram	10 00
105 Allergy test	A & A
106 Immunology	A & A
107 Spinal puncture	10 00
108 Spinal puncture with manometric determination	15 00
109 Blood transfusion, direct	50 00
110 Blood transfusion indirect (citrate)	25 00
111 Fee for donor Regular Blood Donors Association fee	
112 Gastric lavage (poison, etc.)	10 00
113 Burn* according to area involved and per visit	A. & A.
114 Skin patch test	A & A.
115 Abdominal paracentesis	10 00
116 Uterine Curettage, 3 weeks after cure	50 00
117 Injection veno surgery	5 00

ANESTHESIA

<i>125 When given by other than operating surgeon Period of time to be measured from beginning of induction of anesthesia to recorded end of operation</i>	
126 Gas, given by a medical anesthetic specially called, an additional fee of	5 00
127 Gas, first one-fourth hour	5 00
128 Gas up to one half hour	10 00
129 Gas up to one hour	15 00
130 Gas each additional one-half hour	5 00
131 Ether up to one-half hour	5 00
132 Ether each additional one half hour	5 00
133 Chloroform up to one half hour	5 00
134 Chloroform each additional one-half hour	5 00
135 Spinal for first hour	15 00
136 Spinal over one hour	20 00
137 Rectal when performed by other than operator	15 00
138 Rectal over one hour	20 00
139 Intravenous anesthetic to one-half hour	10 00
140 Intravenous anesthetic to one hour	15 00
141 Intravenous anesthetic over one hour	20 00
14 Local anesthesia by operator is part of operating fee as scheduled	

FRACTURES

150 Compound fractures—increased fee 50%	
<i>After-Care</i>	
151 Skull operative not within dura	3 wks. 100 00
152 Skull involving work within dura	3 wks. 150 00
153 Skull non-operative at per visit basis	
154 Maxilla, closed	3 wks. 35 00
155 Mandible (uncomplicated) unilateral	3 wks. 50 00

156 Mandible (uncomplicated) bilateral	3 wks. 100 00
157 Malar lateral	3 wks. 35 00
158 Nose	3 wks. 25 00
159 Nasal septum	A & A.
160 Trephine	3 wks. 100 00
161 Clavicle closed	3 wks. 40 00
162 Clavicle open	A & A.
163 Scapula	3 wks. 40 00
164 Rib strapping	5 00
165 Vertebrae contiguous, bodies or laminae closed	2 mos. 100 00
166 Vertebral processes non-operative	10 00
167 Vertebrae open	A & A.
168 Humerus closed	2 mos. 100 00
169 Humerus, open	2 mos. 150 00
170 Radius or ulna, closed	2 mos. 50 00
171 Radius or ulna open	2 mos. 75 00
172 Radius and ulna, closed—shaft	2 mos. 100 00
173 Radius and ulna, open—shaft	2 mos. 150 00
174 Colles fracture, closed	2 mos. 65 00
175 Colles fracture open	2 mos. 110 00
176 Elbow (including humerus radius and ulna) closed	2 mos. 75 00
177 Elbow (including humerus, radius and ulna) open	2 mos. 110 00
178 Carpal bones, closed	2 mos. 50 00
179 Carpal bones, open	2 mos. 100 00
180 Metacarpals (one or more) closed	3 wks. 30 00
181 Metacarpals (one or more) open	2 mos. 75 00
182 Finger—one	3 wks. 50 00
183 Fingers multiple on one hand	3 wks. 35 00
184 Femur closed	2 mos. 150 00
185 Femur open	2 mos. 175 00
186 Patella closed	3 wks. 50 00
187 Patella, open	6 wks. 100 00
188 Tibia closed	2 mos. 75 00
189 Tibia, open	2 mos. 110 00
190 Fibula, closed	2 mos. 50 00
191 Fibula open	2 mos. 75 00
192 Tibia and fibula, closed	2 mos. 100 00
193 Tibia and fibula, open	2 mos. 150 00
194 Potts fracture closed	2 mos. 75 00
195 Potts fracture open	2 mos. 110 00
196 Metatarsal bones closed	3 wks. 30 00
197 Metatarsal bones, open	2 mos. 75 00
198 Toes—single toe—first toe	3 wks. 20 00
199 Toes—single toe—other than first	3 wks. 15 00
201 Sacrum closed	3 wks. 50 00
202 Pelvis one bone	1 wk. 50 00
203 Pelvis, multiple	3 wks. 75 00
204 Pelvis, open	A & A.
205 Os Calcis closed	2 mos. 50 00
206 Os Calcis, open	2 mos. 100 00
207 Astragalus, closed	2 mos. 40 00
208 Astragalus, open	2 mos. 80 00
209 Tarsal bones, others, closed	3 mos. 30 00
210 Tarsal bones others, open	3 mos. 60 00
211 Multiple fractures not in same hand or foot Add to the greater fee a sum equal to 50 per cent of each lesser not exceeding two times the greater	
212 Multiple injuries treated by one doctor requiring extensive surgical dressings or care are to be charged for the greatest plus one-half of the lesser fees but limited to two times the greatest fee Superficial injuries not requiring extensive attention are not to carry cumulative charges	
213 Preparation of scheduled unit fee When the schedule specifies	

fixes a unit fee for a definite treatment and period of after care and the patient is transferred from one to another physician, the employer (or carrier) is responsible for the amount stated in the schedule. If the concerned physicians agree upon amount of proration they shall render separate bills accordingly, in the event of no agreement or disagreement, the matter shall be settled by the Board of the local County Medical Society, or by an arbitration committee appointed by it—without cost to the contestants.

22 *In all cases where there is a time limit, the attending physician is to give the necessary after-care required within his classification.*

Where exceptional conditions present themselves, the physician must obtain authorization to call in a specialist, except in an emergency.

DISLOCATIONS

250	Temporo-mandibular		10 00
251	Spine, open	6 mos	150 00
252	Spine, closed	2 mos	100 00
253	Shoulder	3 wks	40 00
254	Shoulder, recurrent—operation	A & A	
255	Elbow, closed	3 wks	35 00
256	Elbow, open	3 wks	75 00
257	Finger, reduction and splint		5 00
258	Finger, open	3 wks	40 00
259	Hip	3 wks	75 00
260	Knee	3 wks	60 00
261	Ankle	3 wks	40 00
262	Astragalus, closed	3 wks	50 00
263	Astragalus, open	2 mos	100 00
264	Os Calcis, closed	3 wks	50 00
265	Os Calcis, open.	2 mos	100 00
266	Toe, reduction and splint		5 00

AMPUTATIONS

275	Arm, disarticulation, uncomplicated	6 wks	150 00
276	Arm, thru head or neck	6 wks	100 00
277	Arm, below neck	6 wks	75 00
278	Forearm	6 wks	75 00
279	Hand at wrist	6 wks	75 00
280	Carpus	6 wks	60 00
281	Metacarpus	6 wks	50 00
282	Phalanx	6 wks	30 00
283	Thigh, disarticulation	6 wks	150 00
284	Leg at knee	6 wks	100 00
285	Patella, excision	6 wks	75 00
286	Femur, head and neck	6 wks	150 00
287	Femur	6 wks	100 00
288	Knee	6 wks	100 00
289	Tibia or fibula	6 wks	100 00
290	Foot at ankle joint	6 wks	75 00
291	Foot thru metatarsus	6 wks	75 00
292	Os Calcis (Syme's amp)	6 wks	100 00
293	Phalanx (toe)	6 wks	30 00
294	Astragalectomy	2 mos	100 00
295	Laminectomy or other osteo plastic	2 mos	200 00
296	Coccyx, removal	3 wks	50 00
297	Spinal fusion, involving bone inlay	2 mos	200 00
298	Removal of semilunar cartilage	2 mos.	100 00
299	Rib excision or resection	3 wks	50 00
300	Arthrodesis hip	2 mos.	150 00
301	Arthrodesis wrist	2 mos	100 00
302	Arthrodesis knee	2 mos	100 00

303	Arthrodesis shoulder	2 mos	100 00
304	Bone graft—for non union of femur including post-operative therapy	4 mos	200 00
305	Bone graft—for non union of tibia, including post operative therapy	4 mos	175 00
306	Bone graft—humerus, including post-operative therapy	4 mos	175 00
307	Bone graft—forearm, including post operative therapy	4 mos	175 00

Surgical Procedures

INCISION

325	Incision for superficial abscess as furuncle or boil		3 00
326	Incision for abscess, carbuncle with multiple pockets		5 00
327	Incision of deep abscess or infection		25 00
328	Paronychia		5 00
329	Laparotomy, exploratory only	3 wks	100 00
330	Operation on viscera	A & A	
331	Simple bowel resection	3 wks	150 00

EXCISION

350	Removal of nail, finger or toe, including local anesthetic		5 00
351	Excision of sub-deltoid bursa	3 wks	50 00
352	Excision of prepatella bursa	3 wks	35 00

REPAIR

365	Tendon, one primary	3 wks	35 00
366	Tendon, each additional		10 00
		maximum	100 00
367	Tendon, secondary		A. & A.
370	Nerve suturing, primary, single	3 wks	35 00
371	Nerve suturing, each additional		10 00
		maximum	100 00
372	Nerve suturing, secondary		A. & A.
375	Hernia, single (including assistant's fee)	8 wks	75 00
376	Hernia, double (including assistant's fee)	8 wks	100 00
377	Hernia, recurrent		A & A
379	Hernia, diaphragmatic		A & A
380	Hernia, post surgical (including assistant's fee)	8 wks	100 00
381	Hernia, ventral (including assistant's fee)	8 wks	100 00
385	Suture of soft tissue wound, such as—		
386	Skin Routine fee plus \$1 00 for each suture	maximum	10 00
387	Fascia Routine fee plus \$1 00 for each suture	maximum	10 00
388	Muscle Routine fee plus \$1 00 for each suture	maximum	10 00
390	Superficial lacerations Office visit		

FOREIGN BODIES

392	Foreign body extraction, intra cutaneous Office fees		
393	Foreign body extraction, sub cutaneous, without anesthetic		5 00
394	Foreign body extraction, sub-cutaneous, with anesthetic		10 00
395	Foreign body extraction, deep	3 wks	25 00
396	<i>Note Above extractions do not include removal of foreign body from eye or orbit</i>		

Consultations and Consultant Care

"SG" QUALIFICATION

400	Urologist consultation fee, complete, but not inclusive of cystoscopy, x ray demonstration		15 00
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601	Excision of kidney	3 wks	150 00
602	Fixation of kidney		A & A
603	Kidney calculi removal	3 wks	150 00
604	Nephrotomy	3 wks	100 00
605	Cystotomy	3 wks	75 00
606	Cystoscopy without X ray		25 00
607	Cystoscopy including catheterization ureters		35 00
608	External Urethrotomy		A & A
609	Hydrocele—radical	3 wks	50 00
610	Hydrocele—tapping		10 00
611	Orchiectomy	3 wks	60 00
612	Epididymectomy	3 wks	75 00

Dermatology

"SH" QUALIFICATION

650	Examination, complete, or consultation		10 00
650a	Check up examination of referred patient		5 00
651	Subsequent examination or care		3 00
652	Subsequent care, with X ray therapy		5 00
653	Hospital visit		3 00
654	Neo-salvarsan, plus cost of drug		7 50

Proctology

"SM8" QUALIFICATIONS

665	Anal fissure, divulsion under anesthesia		15 00
666	Single fistula including 3 weeks after care		50 00
667	Multiple fistulae including 3 weeks after care		75 00
668	Hemorrhoids, removal by injection, per visit		5 00
669	Hemorrhoids, external, single, 2 weeks after care		25 00
670	Hemorrhoids, multiple external, 2 weeks after care		50 00
671	Hemorrhoids, internal, 2 weeks after care		50 00
672	Incision of thrombosed hemorrhoid		10 00
673	Prolapse, anal, treatment by laparotomy including 3 weeks after care		150 00
674	Rectal resection, including 4 weeks after care		150 00

Physical Therapy

"SM1" QUALIFICATION

690	Per visit, inclusive of any and all modalities		3 00
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OSTEOPATHY

"OP" QUALIFICATIONS

Lines Nos 691 to 695 apply only when osteopathic manipulation is included

691	Examination or consultation at office—first visit		4 00
692	Subsequent office visits		3 00
693	Home call—day		4 00
694	Home call—night (between 12 midnight and 7 a m)		5 00
695	Hospital call		3 00
696	<i>As respects all other items in this schedule which come lawfully within the scope of osteopathy osteopaths shall be entitled to the same fees as permitted for physicians practicing in other fields of medicine</i>		

BLOOD		Pathology
700	Wassermann	5 00
701	Wassermann—any modifications	5 00
702	Precipitation (Kahn or other precipitation test)	3 00
703	Any two tests of the above	7 50
704	Complement fixation gonococcus	3 00
705	Full blood count	5 00
706	White blood count and differential	2 00
707	Coagulation time	2 00
708	Sedimentation test	3 00
709	Fragility test	3 00
710	Platelet count	2 00
711	Full test—hemorrhagic diathesia	10 00
712	Icteric index	2 00
713	Special culture	A & A.
714	Widal	3 00
715	Simple culture	5 00
716	Bilirubin VandenBergh	3 00
717	Malaria (plus red blood count)	2 00
718	Typing and grouping	5 00
719	Cross agglutination tests	5 00
720	Additional per person	2 00
721	Urea nitrogen	2 00
722	Noncoagulation nitrogen	2 00
723	Uric acid	3 00
724	Cholesterol	3 00
725	Creatinine	3 00
726	Sugar	2 00
727	Co2	2 00
728	Any four tests of the above	7 50
729	Calcium	3 00
730	Magnesium	3 00
731	Phosphorus	3 00
732	Chlorides	3 00
733	Any three of the above	7 50
734	Lactic acid	3 00
735	Hydrogen ion concentration	3 00
736	Albumin globulin ratio	7 50

URINE

740	Routine—chemical qualitative without microscopic		1 00
741	Routine—chemical qualitative with microscopic		2 00
742	Routine—chemical and microscopic including quantitative sugar		3 00
743	Arsenic or lead (heavy metals)	A & A.	2 00
744	Quantitative urea		2 00
745	Quantitative creatinine		2 00
746	Quantitative uric acid		2 00
747	Quantitative ammonia		2 00
748	Quantitative chlorides		2 00
749	Quantitative total nitrogen		10 00
750	Above five tests		2 00
751	Phthalein		3 00
752	Urobilin quantitative		3 00
753	Tyrosin		5 00
754	Mosenthal or other conc tests		5 00
755	Simple culture	A & A.	
756	Special culture		
757	Ureter specimens, urea, microscopic plus cultures, both sides		15 00
758	Tuberculosis—extra		3 00
759	Animal Inoculation		10 00

CEREBROSPINAL FLUID

765	Wassermann		3 00
766	Precipitation		3 00
767	Colloidal Gold Test		2 00
768	Cell Count		2 00
769	Globulin		5 00
770	Simple culture	A. & A.	
771	Special culture		2 00
772	Smear for Bacteria		3 00
773	Tubercle Bacilli		5 00
774	Twelve hour sedimentation test		

775 Full spinal fluid examination for syphilis (Wassermann Colloidal Gold Cells Globulin)	7 50
776. Animal inoculation	10 00

FROZEN SECTION

781 Frozen section in hospital (pathologist at operation)	15 00
782. Frozen section outside	A. & A.

MISCELLANEOUS ITEMS

790 Throat culture	3 00
791 Smears—all—except otherwise stated	2 00
792 Search for bacilli in exudates	3 00
793 Sputum for tubercle bacilli	3 00
794 Simple sputum culture	5 00
795 Special sputum culture	A & A
796. Sputum microscopic	2 00
797 Vaccines Sputum	7 50
798. Typing of pneumococcus	5 00
799 Dark field—no charge for smear venereal, etc	5 00
800. Stomach contents for ferments	5 00
801 Ewald or retention	5 00
802 Fractional Reflux	5 00
803 Bacteriophages	A. & A.
804 Cakrull	A & A.

FECES

810 Parasites	3 00
811 Typhoid and para cultures	5 00
812. Microscopic for bacteria, etc	3 00
813 Urobilin	3 00
814 Urobilin quantitative	5 00
815 Histamine	3 00
816 Occult blood only	2 00
817 Ferments	5 00
818. Simple culture	
819 Special culture	A. & A
820 Fats—quantitative	5 00
821 Basal metabolism	10 00
822 Immunology and allergy	A & A
823 Spinal puncture	10 00
824 Spinal puncture with manometric determination	15 00
830 Complete post mortem and report, without microscopic work	50 00
831 Complete post mortem and report, with tissue microscopic examination	75 00
832. Other post mortem laboratory work as scheduled above	
835 If when pathologist visits patient's home or other place to obtain specimen add \$3.00 for home visit to the above items.	
836. The attending physician will not make charge for obtaining specimen except spinal puncture	

Roentgenology and Radiology

"SD" QUALIFICATION

- 838 Lines 850 to 945 inclusive specify fees for physicians who are qualified as "SD"
- 851 (Instructions do not file either C-104 or C-4 reports. In stead make written report in quadruplicate having one notarized and sent to your district of the State Department of Labor send one to the attending physician or surgeon retain one for record. Render separate bill to carrier if known, or employer with the report. Films

shall be preserved by roentgenologist and they (or satis factory prints) shall be made available to attending physician carrier or employer)

- 852 Fees are for a competent diagnosis by x-ray image expert interpretation and opinion—size and number of films not relevant

853 Single finger	5 00
854 Single toe	5 00
855 Hand (including fingers)	8 00
856. Wrist (including carpus and lower one-third of forearm)	8 00
857 Forearm mid one-third	8 00
858. Elbow (including upper one third of forearm and supra condyles)	8 00
859 Humerus mid one-third	8 00
860 Foot (including toes)	8 00
861 Ankle (including lower three inches of leg)	8 00
862 Leg mid one-third	8 00
863 Knee (including four inches above and below joint)	8 00
864 Femur mid one-third	8 00
865 Femur upper one third	8 00
870. Shoulder joint	10 00
871 Clavicle	10 00
872. Scapula	10 00
873 Hip joint	15 00
875 Head and face complete examination	20 00
876 Head and face partial examination for follow-up when area of injury has been demonstrated previously	10 00
880 Nasal bones	10 00
881 Nasal sinuses	15 00
882 Mastoids	15 00
883 Mandible—one side	10 00
884 Cervical spine	15 00
885 Dorsal spine	15 00
886 Lumbar spine	15 00
887 Pelvis	15 00
888 Sacro-iliac joint and coccyx	15 00
889 Any two spinal regions	25 00
890 Any three spinal regions	35 00
891 Sacro-iliac (including lumbosacral (acets)	A. & A
900. Thoracic cage (not including spine) any one area	15 00
901 Lungs and heart (not including cardiac mensuration)	15 00
902 Cardiac mensuration (including fluoroscopy)	15 00
903 Abdomen and gastro-intestinal; flat plate for acute obstruction	15 00
904 Esophagus only (including fluoroscopy)	15 00
905 Gastro-intestinal (esophagus to cecum)	25 00
906. Gastro-intestinal (esophagus to ampulla)	35 00
907 Colon by opaque enema	20 00
908. Gall bladder simple	15 00
909 Gall bladder Graham test, oral	25 00
909a. Intravenous or Stewart concentrate	35 00
910 Genitourinary—simple	15 00
911 Genito-urinary — retrograde pyelography (not inclusive of injection)	15 00
912. Genito-urinary—pyelography by excretion	25 00
913 Teeth—complete dental study	10 00
914 Foreign body same as part involved	

915 Foreign body—search of respiratory or alimentary canal	20 00	1106 Gastro intestinal (esophagus to ampulla)	17 50
916 Foreign body—eye, precise localization	25 00	1108 Gall bladder, simple	7 50
917 Bedside — institutional — add 15% to normal fee for part		1110 Genito-urinary, simple	7 50
918 Bedside—domicile	A. & A	1111 Genito urinary, retrograde pyelography (not inclusive of injection)	7 50
919 Interpretation of films made elsewhere	A & A	1113 Foreign body, same fees as No 1053 to 1075 according to region	
935 Radium therapy	A & A	1114 Foreign body, search of respiratory or alimentary canal	10 00
940 X ray therapy	A & A.	1116 Foreign body—eye, precise localization	12 50
945 <i>When patients are treated by x ray or radium C 104 and C-4 must be filed</i>		1118 Bedside, domicile	A. & A
X RAY DEMONSTRATIONS BY SPECIALISTS OTHER THAN THOSE HAVING "SD" QUALIFICATION		1119 Colon by opaque enema	8 00
1050 <i>Lines 1050 to 1150 inclusive apply to specialists other than those having "SD" qualification, each specialist limited to his own special field, but shall not be barred from examining patients referred for x ray examination only in his own special field</i>		X RAY DEMONSTRATION BY PHYSICIANS WITH "XD" QUALIFICATION	
1051 Teeth—Complete dental study	5 00	1200 <i>Lines Nos 1200 to 1300 inclusive apply to physicians with the "XD" qualification Nothing in this schedule shall bar such physician from examining patients referred for x ray examination only as respects to lines 1200 to 1300</i>	
1053 Single finger	2 50	1201 <i>Fees are for regional examination size and number of films not relevant</i>	
1054 Single toe	2 50	1202 Single finger	3 50
1055 Hand (including fingers)	4 00	1203 Single toe	3 50
1056 Wrist (including carpus and lower one-third of forearm)	4 00	1204 Hand (including fingers)	6 00
1057 Forearm, mid one-third	4 00	1205 Wrist (including carpus and lower one-third forearm)	6 00
1058 Elbow (including upper one-third of forearm and supra condyles)	4 00	1206 Forearm mid one-third	6 00
1059 Humerus, mid one third	4 00	1207 Elbow (including upper one-third of forearm and supra condyles)	6 00
1060 Foot (including toes)	4 00	1208 Humerus mid one-third	6 00
1061 Ankle (including lower three inches of leg)	4 00	1209 Foot (including toes)	6 00
1062 Leg, mid one third	4 00	1210 Ankle (including lower three inches of leg)	6 00
1063 Knee (including four inches above and below joint)	4 00	1211 Leg mid one third	6 00
1064 Femur, mid one-third	4 00	1212 Knee (including four inches above and below joint)	6 00
1065 Femur, upper one-third	4 00	1213 Femur mid one third	6 00
1070 Shoulder joint	5 00	1214 Femur upper one-third	6 00
1071 Clavicle	5 00	1215 Shoulder joint	8 00
1072 Scapula	5 00	1216 Clavicle	8 00
1073 Hip joint	7 50	1217 Scapula	8 00
1075 Head and face, complete examination	10 00	1218 Hip joint	11 00
1076 Head and face, partial examination for follow up when area of injury has been demonstrated previously	5 00	1219 Head and face, complete examination	15 00
1080 Nasal bones	5 00	1220 Head and face, partial examination for follow up when area of injury has been demonstrated previously	8 00
1081 Nasal sinuses	7 50	1221 Nasal bones	8 00
1082 Mastoids	7 50	1222 Nasal sinuses	11 00
1083 Mandible, one side	5 00	1223 Mastoids	11 00
1084 Cervical spine	7 50	1224 Mandible—one side	8 00
1085 Dorsal spine	7 50	1225 Cervical spine	11 00
1086 Lumbar spine	7 50	1226 Dorsal spine	11 00
1087 Pelvis	7 50	1227 Lumbar spine	11 00
1088 Sacro-iliac joint and coccyx	7 50	1228 Pelvis	11 00
1089 Any two spinal regions	12 50	1229 Sacro iliac joint and coccyx	11 00
1089a Any three spinal regions	17 50	1230 Any two spinal regions	18 00
1090 Sacro-iliac (special including lumbo-sacral facets)	A & A	1231 Any three spinal regions	26 00
1100 Thoracic cage (not including spine) any one area	7 50	1232 Sacro iliac (including lumbo sacral facets)	A & A
1101 Lungs and heart (not including cardiac mensuration)	7 50	1233 Thoracic cage (not including spine) any one area	11 00
1102 Cardiac mensuration, including fluoroscopy	7 50	1234 Lungs and heart (not including cardiac mensuration)	11 00
1103 Abdomen and gastro-intestinal, flat plate for acute obstruction	7 50	1235 Cardiac mensuration (including fluoroscopy)	11 00
1105 Gastro intestinal (esophagus to cecum)	12 50	1236 Abdomen and gastrointestinal, flat plate for acute obstruction	11 00

1237 Esophagus only (including fluoroscopy)	11 00
1238. Gastro-intestinal (esophagus to cecum)	18 00
1239 Gastro-intestinal (esophagus to ampulla)	26 00
1240 Colon by opaque enema	15 00
1241 Gall bladder simple	11 00
1242 Gall bladder Graham test, oral	15 00
1243 Intravenous or Stewart concentrate	26 00
1244 Genito-urinary — simple	11 00
1 45 Genito-urinary—retrograde pyelography (not inclusive of injection)	11 00
1246. Genito-urinary—pyelography by excretion	18 00
1247 Teeth, complete dental study	8 00
1248. Foreign body same as part involved	
1249 Foreign body search of respiratory or alimentary canal	15 00
1250 Foreign body—eye, precise localization	18 00
1251 Bedside—institutional—add 15 per cent to normal fee for part.	
1252 Bedside—domicile	A. & A
1253 Interpretation of films made elsewhere	A & A
1254 Radium therapy	A & A
1255 X-ray therapy	A & A
1256 When patients are treated by x-ray or radium C 104 and C-4 must be filed	

(Lines 1257—1300 are blank)

Key to Code Letters

- X—General practice
- S—Practice limited to specialty
- A—General surgery—major
- B—Orthopedic surgery
- C—Traumatic surgery—not inclusive of major or open procedures unless also qualified under A or B
- D—Roentgenology (1) and/or radiation (2)
- E—Ophthalmology
- F—Laryngology (1), rhinology (2) otology (3)
- G—Urology
- H—Dermatology (1) and/or syphilology (2)
- I—Neurology (1) and/or psychiatry
- J—Internal medicine
- K—Pathology (1) clinical pathology (2) bacteriology (3) chemistry (4) serology (5) and/or hematology (6)
- L—Gynecology (1) and/or obstetrics (2)
- M (1)—Physical therapy
- M (2)—Tuberculosis and lung diseases
- M (3)—Gastroenterology
- M (4)—Cardiology
- M (5)—Minor surgery
- M (6)—Anesthesia
- M (7)—Plastic surgery
- M (8)—Proctology
- M (9)—Neuro surgery
- M (10)—Public health and Industrial diseases.
- M (11)—Metabolic diseases.
- M (12)—Immunology and allergy
- M (13)—Bronchoscopy
- M (14)—Endocrinology
- M (15)—Oral surgery
- M (16)—Vascular and veno-therapy
- M (17)—All others

Rules and Regulations Promulgated by the Industrial Commissioner Covering Chapters 258 and 930 of the Workmen's Compensation Law

1 Medical Compensation Boards must pass upon the application of a physician within sixty days and notify the Industrial Commissioner of its action. If such Board fails to recommend that a physician be authorized to render medical care under Chapter 258 the physician may appeal to the Industrial Council, as provided in clause (G) of sub-division four of section ten a of the Labor Law who thereafter has sole jurisdiction.

2 Removal of physicians from panels and revocation of licenses of medical bureaux. Section 13-d.

The recommending compensation boards shall investigate hear and determine all charges of professional or other misconduct by any authorized physician or by any licensed compensation medical bureau under rules and procedure prescribed by the Industrial Council as follows

(a) The physician or medical bureau accused of misconduct shall be given twenty days notice of the charges in writing including a bill of particulars setting forth the specific section and subdivision of the law violated and the time date and place of the hearing

(b) Careful records shall be kept of the minutes of the hearing

(c) These records, together with the report of the Board of the Medical Society or other Board, with its findings shall be submitted to the Commissioner

Appeals filed by physicians and medical bureaux with the Industrial Council shall be referred to the subcommittee designated by the Industrial Council to ascertain the facts and report its findings to the Council for final action.

(a) The physician or medical bureau may file an appeal with the Industrial Council from the decision of the Medical Society or other Board

(b) The physician or medical bureau appealing and the Medical Society or other Board whose decision was appealed from, shall be notified in writing indicating the time date and place of hearing

(c) The physician or medical bureau may be represented by counsel.

(d) Accurate stenographic or stenotype minutes of the hearing shall be kept for the files of the Commissioner and Industrial Council.

3 When a physician in association or in co-partnership with another physician or physicians or through another physician or physicians as employees or agents, maintain and operate one or more offices principally for the treatment of injured claimants under the Workmen's Compensation Act, he shall secure a compensation medical bureau license.

4 All reports, except Form C 104 filed by attending physicians and specialists must be verified before a Notary Public or a Commissioner of Deeds to insure their value as prima facie evidence in a compensation case.

5 All specialists consultants, etc., shall submit a report of their findings in triplicate one copy to the Industrial Commissioner one to

the attending physician and one copy to the employer or insurance carrier. If the specialist acts as attending physician, he shall file a 48 hour report with the employer or carrier and with the Industrial Commissioner.

6 All medical reports filed by attending physicians and specialists must contain the authorization certificate number and code letters.

7 When it is necessary for the attending physician to engage the services of a specialist, consultant or a surgeon, or to provide for physiotherapeutic procedures costing more than twenty-five dollars or to provide for X-ray examinations and special diagnostic laboratory tests costing more than ten dollars, he must secure authorization from the employer or insurance carrier or the Industrial Commissioner. Such authorization is not necessary when special services are required in an emergency or when authorization has been unreasonably withheld. Section 13-a-5.

8 The authority of an employer for the services of a specialist in excess of a \$25.00 fee, applies only to the necessity for such services, but the choice of such specialist is entirely within the jurisdiction of the injured worker.

9 When it is in the interest of the injured employee, and where an X-ray is required and it is impossible to secure the services of a qualified X-ray specialist, the Board of the Local County Medical Society may designate a specially qualified individual to take X-ray pictures under the supervision of the attending physician. The attending physician, however, shall render a bill for such service to the employer. This in no way, however, deprives the employer or insurance carrier from having other X-ray pictures taken if they so desire.

10 A physician authorized to treat workmen's compensation cases, when requested to supersede another physician, must, before beginning treatment of such patient, make reasonable effort to communicate with the attending physician to ascertain the patient's condition. The superseding physician must also advise the attending physician of the name of the person who has requested him to assume care of the case and state the reason therefor. If the second physician cannot contact the attending physician, and the claimant's condition requires immediate treatment, the said physician should advise the doctor previously in attendance within 48 hours that he now has the patient in his care. The preceding physician shall supply the succeeding physician with a complete history of the case.

11 In the event of a serious accident requiring immediate emergency medical aid, an ambulance or any physician may be called to give first aid treatment.

12 A registered physiotherapist may treat workmen's compensation cases at his own office or bureau when the case is referred to him by an authorized physician. The authorized physician should, however, give written directions to the physiotherapist as to the kind of treatment to be rendered and the number of treatments to be given. These directions must be given in writing by the physician and shall constitute a part of the record of the case.

13 Bills for x-rays and consultations shall

be submitted for payment directly to the employer or carrier by the specialist rendering the service. These services must be authorized in writing by the physician in attendance.

14 Physicians treating claimants in hospitals may secure the signature of claimant for authorization to obtain copies of any necessary hospital records.

15 The physician in attendance in public hospitals must be the judge as to when the "emergency status" of the case has terminated. In case of a dispute the matter shall be referred to the Compensation Board of the Medical Society of the County in which the hospital is located, for immediate decision.

16 Medical inspectors of insurance companies shall be admitted to hospitals or other institutions where injured employees are confined, upon proper identification, for the purpose of complying with Section 13-j.

17 A hospital may not secure a license to operate a medical bureau to render care to compensation cases.

18 No license is necessary to operate a first aid station for emergency treatment but no subsequent treatments are to be rendered by any one other than a qualified physician.

19 No advertising matter of any nature, on compensation work, by authorized physicians, medical bureaus or laboratories shall be permitted.

20 No insurance company or self-insurer may reduce the size of notice to employees (Form C105) which is to be placed in all places of employment covered by the Act, unless such permission is granted on application to the Industrial Commissioner.

21 "Section 13-F-2 applies only to the physician selected by the claimant to treat him as provided by Section 13-A. Such physicians are entitled to a fee for attendance at a hearing when subpoenaed by any party in interest or when directed to do so by a Referee or when produced by an insurance carrier or employer. When such physician is a general practitioner his fee shall be \$10.00 plus mileage (outside New York City) and a fee of \$5.00 for each additional case on which he testifies at the same appearance. When such physician is a specialist and is so designated and qualified and has examined, consulted or treated under his specialty, his fee shall be \$25.00 plus mileage (outside New York City) and a fee of \$12.50 for each additional case on which he testifies at the same appearance. In exceptional cases involving specialists' testimony, the matter may be referred to the Industrial Commissioner who may consider the allowance of a higher fee. On and after February 1st, 1938, in the event of failure of such doctor to complete and submit a verified C-4 report as required by Sub-Division 4 of Section 13-A or when the content of such report is vague, misleading or otherwise incomplete, such doctor shall not be entitled to an attendance fee, unless otherwise directed by the Industrial Commissioner."

21-A A physician who testifies at hearings or examines claimants or participates in examinations for evidential material for compensation case hearing purposes only, may accept fees for such services from claimants.

21 B "Any physician, specialist or consultant involved in the medical care and treatment of a compensation case must appear at a hearing when subpoenaed and shall give his testimony for the prescribed fee set forth in the rules and regulations adopted by the Industrial Commissioner. This ruling does not deprive the specialists and consultants from applying to the Industrial Commissioner for a higher fee as provided by Rule #21. In the event of a failure to comply with this regulation such physician, specialist or consultant will be held responsible to the Industrial Council."

22 Hospitals shall render bills for board and room accommodation medical and surgical supplies and nursing facilities. Hospitals may render bills for x ray, physiotherapeutic, anesthetic and pathologic services when rendered by or under the supervision of salaried physicians on the staff. The names and qualifications of all physicians and persons rendering services for which charges are made by hospitals must be included in all bills and all medical and x ray reports shall be promptly filed with the employer or its insurance carrier and the Department of Labor.

RULES GOVERNING RECOMMENDING OF AUTHORIZED PHYSICIANS BY INSURANCE CARRIERS AND EMPLOYERS AND THE PROCEDURE TO BE FOLLOWED BY MEDICAL INSPECTORS AND CONSULTANTS

23 The supplying of names of authorized physicians by insurance carriers to their policy holders is in contravention to Section 13 as amended by Chapter 258 of the laws of 1935. Such policyholders and all employers may secure a list of all authorized physicians in the vicinity of their places of business by applying to the Industrial Commissioner of the Department of Labor.

24 Any physician who acts in the capacity of medical inspector for an insurance carrier or employer in the case of an injured employee under the care of another physician shall not participate in the treatment of said injured employee except in the operation of a rehabilitation clinic or bureau under Section 13-j of the Law. Nothing herein contained affects the right of transfer as provided in Section 13-a(3).

25 When a medical examination is had under Section 13-a(4) it shall be by a qualified physician at a place reasonably convenient to the claimant and in the presence of the claimant's physician, if in the latter's opinion his presence is necessary. A duplicate copy of all notices of requests for examination must be sent to the attending physician.

26 No physician designated by an insurance carrier or an employer as a consultant in the case of an injured employee, shall subsequently participate in the medical or surgical care of said injured employee except with the written consent of the injured employee and his attend-

ing physician. Nothing herein contained affects the right of transfer as provided in Section 13-a(3).

RULES GOVERNING THE LICENSING OF AND OPERATION OF COMPENSATION MEDICAL BUREAUS

27 The character and frequency of accidents, the number of employees in a given plant and the availability of qualified medical care in the immediate vicinity of the place of employment should be considered in relation to the authorization of an employer's compensation medical bureau.

28 The bureau should be located in the industrial plant or in the immediate vicinity.

29 The question of the necessity of the presence of a physician during working hours, or the availability of a physician at stated hours, should be determined by an inspection of the plant to ascertain the nature of the hazards and the frequency of accidents.

30 The bureau shall be well housed with sufficient space, light and air and shall conform to reasonable sanitary requirements. Proper facilities in the form of personnel for assistance in emergencies instruments sterilizers, dressings, drugs, shall be available at all times and in amounts proportionate to the size of the plant and the number of employees. Such facilities shall be adequate for more than mere emergency care and for the more severe type of industrial injury.

31 A bureau license may be given for a stated project which, because of the hazards of the project and the frequency of accidents, requires continued medical care and such license shall be for the life of the given project only. In such cases all employees of all subcontractors shall be covered by the license.

32 No license shall be issued to an employer to cover any but his own employees except as indicated in Rule #31.

33 First aid stations—No license is required to operate a first aid station by an employer of labor. Such first aid or emergency station should be properly equipped for first aid in accordance with the type of hazard encountered at the particular place of employment.

34 Form C 105 a notice of the rights of an injured employee and the responsibilities of the employer, shall be posted in each compensation medical bureau and first aid station.

35 All compensation medical bureaus operated by summer camps and other institutions, wherein such camps and institutions are operating for a profit shall be charged a license fee of \$25.00 per annum for the operation of such medical bureaus which are in operation for six months of the year or less.

ELMER F. ANDREWS
Industrial Commissioner

December 1 1937

Patient "Now that I am going to marry Mildred there is just one thing that I want to get off my chest."

Doctor "What is that my boy?"

Patient "A tattooed heart with the entwined name of Judith"—*Medical World*

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

KINGS COUNTY The Woman's Auxiliary arranged and presented a Public Health Institute on October 11, at the County Society Building as its contribution toward Health Education. Women interested in Health Activities were invited to participate in the all day program. The guests of the morning session were greeted by Dr. John B. D'Albora, President of the Medical Society of the County of Kings. The guest speakers were Dr. Matthew Walzer, Dr. Walter Truslow, Dr. George H. Roberts, Jr., and Mr. Dwight Anderson, Director of the Public Relations Bureau of the Medical Society of the State of New York, who spoke on "Why A Woman's Auxiliary?"

The guests of the afternoon session were greeted by Dr. G. Marjorie Williams, Chairman of the Advisory Council of the Woman's Auxiliary. The guest speakers were Dr. LeGrand Kerr and Dr. Charles A. Gordon. The program ended with the motion picture "The Birth of a Baby."

Mrs. John L. Bauer was in charge of this program.

NASSAU COUNTY At the first meeting of the Auxiliary held in the Bar Association Building in Mineola, Mr. F. Davis, Superintendent of Nassau Hospital, spoke on "Hospitalization and the Medical Plan."

An Annual Membership Tea was held on October 18, in the Nassau Hospital Auditorium.

ROCKLAND COUNTY A very interesting program of movies, lectures, and discussion on Cancer and Cancer Control was arranged for the people of Rockland County by the

Medical Society and the Woman's Auxiliary. Three lectures were given by Dr. John M. Swan, Executive Secretary of the New York State Committee of the American Society for the Control of Cancer. The first lecture was given in the Nyack High School Auditorium, the second in the Suffern High School Auditorium, and the third in the Haverstraw High School Auditorium.

Only a few years ago cancer was considered by the average layman to be incurable and people suffering from cancer were doomed to a lingering and painful death. Today, even though cancer ranks next to heart disease as the cause of all deaths, medical science has found that it can be controlled if it is recognized in its early stages and that it can be cured if persons will seek treatment when it is still in a curable stage.

Dr. Swan was also the guest of the Woman's Auxiliary at a special meeting in the Nyack Y M C A Building. A social hour followed this meeting.

SCHENECTADY COUNTY Mrs. F. Leslie Sullivan, President of the Woman's Auxiliary, entertained the members of the Executive Committee at luncheon at the Mohawk Golf Club.

The first fall meeting and luncheon were held at the Hotel Beechnut, Canajoharie, on September 27.

* * *

Our President, Mrs. Daniel Swan, attended the Joint Meeting of the Fifth District Branch held at the Hotel Oneida on October 6 as the guest of Madison County.

AMERICAN ASSOCIATION FOR ADVANCEMENT OF ORAL DIAGNOSIS

The American Association for the Advancement of Oral Diagnosis, composed of physicians and dentists, invites any medical practitioner in good standing in the American Medical Association to membership, the purpose and aims of the association being:

DENTAL (1) to advance Oral Diagnosis in all of its phases, (2) to encourage and promote the biological, professional and scientific advancement of dentistry, (3) to disseminate accurate information as to all matters of interest to the association and the membership thereof, (4) to encourage the contribution of oral diagnosis in the interest of public health, prevention, early recognition of disease and its eradication, (5) to encourage and promote study classes or sections on oral diagnosis in all local, state, provincial, Canadian and National Dental Organizations.

DENTAL AND MEDICAL (6) to promote a more enlarged and friendly relation between dentists and physicians in Oral Diagnosis, (7) to cooperate with dental and medical organizations, societies, associations and schools by lectures, meetings, clinics, topic discussions for the purpose of enhancing the progress of oral diagnosis in the practice of dentistry and medicine, (8) to encourage and foster the development of the study of oral diagnosis in the practice of dentistry and medicine, (9) to promote and establish oral diagnosis as a separate subject in dental and medical practice, education both undergraduate and postgraduate and examining boards, (10) to encourage and establish cooperative dental and medical research in all the phases of oral diagnosis.

Further information can be obtained from Dr. Orville S. Long or Dr. H. Justin Ross, 515 Madison Avenue, New York City.

Public Health News

Public Health Notes

J ROSSLYN EARP, L.R.C.P., Dr P.H.
New York State Department of Health

The habit of infant loss

In his introduction to what was once a classical treatise on marriage,¹ Professor Senator remarks

It is erroneously assumed particularly in lay circles that it is only for such diseases of their parents as are acquired through debauchery and excesses that the children have to pay the penalty. This is not so. At least just as many absolutely innocent parents free from all taint of immorality and with a pure past life bring into the world dead or delicate children, children predisposed to all kinds of diseases, not as a consequence of their sins and vices but through circumstances connected with the married state which have either knowingly or unknowingly been neglected or disregarded.

Several weeks ago at the sixty seventh annual meeting of the American Public Health Association in Kansas City Eliza beth M Gardiner M.D. and J Yerushalmy, Ph.D., director and statistician respectively of the division of Maternity Infancy and Child Hygiene of the State Department of Health presented fresh evidence of the existence of such neglected circumstances. The tendency for babies to be born prematurely to be born dead, or to be so weakly born that they do not survive the first month of extrauterine life, runs in families. Mothers who have borne a healthy baby are less liable to any of these misfortunes than are mothers who have previously suffered infant loss or given birth prematurely. This is shown in the accompanying table from one of the thirteen tables presented at Kansas City.

The data analyzed in this study are obtained from birth and death certificates of upstate New York. Various checks have been applied to ascertain the accuracy of the material before it was used. Supplementary studies were made when necessary. Since birth certificates do not state whether previous births were full term or premature it was not possible to determine from them alone whether prematurity is also a family habit. This could only be inferred from the association of premature birth with early death. But a study of the birth records in Buffalo City

Hospital with their detailed obstetrical histories enabled the authors to derive the following significant conclusion

The 2,116 mothers who were delivered of full term infants had had in their previous experience 18 premature births and 86 abortions per 1000 previous pregnancies. The 221 mothers who gave birth to premature infants had had previously 50 premature births and 144 abortions per 1000 previous pregnancies

The Children's Charter drawn up at the conference on child health which was called

INCIDENCE OF PREMATURITY AND COMBINED LOSS (LATE FETAL AND NEONATAL MORTALITY) OF PREMATURE AND FULL TERM INFANTS BY THE NUMBER OF PREVIOUS INFANTS LOST TO THE MOTHER, NEW YORK STATE (EXCLUSIVE OF NEW YORK CITY) 1936

Number of Previous Losses	Rates Per 1000 total births in each specified group		
	Incidence of premature birth	Combined loss of premature births	Combined loss of full term births
0	41.5	522.8	22.1
1	73.0	625.9	30.0
2	107.5	690.8	53.9
3	129.8	728.3*	72.2
4+	138.6	824.3*	81.3
1+	85.0	662.4	42.9
Total	52.0	577.9	26.9

* Based on less than 100 births.

by President Hoover (the White House Conference) demands complete prenatal care for every baby. Present budgets for our health department leave this an unattainable ideal. Since a selection must be made Dr Gardiner believes that mothers who have already experienced infant loss should be selected for special attention during subsequent pregnancies both with the object of conserving wherever possible the life of the offspring and also to seek information regarding those circumstances connected with the married state" at present unknown which result in a familial tendency to loss at one stage or another of the products of conception

Reference

1. Senator H. and Kaminer S. *Health and Disease in Relation to Marriage and the Married State*. English translation by J. Dulberg. New York 1904

Medical News

Broome County

THE PROGRAM OF THE Broome County Medical Society on October 11 was as follows

Speaker Dr Katherine B MacInnis "Is Allergy On The Increase?" *Discussion* (1) For Nose and Throat, Dr W R Smith, (2) For Cardiovascular System, Dr C S Benson, (3) For Dermatology, Dr M C Snider

DR CLARK W GREENE, who died on October 1 at the age of eighty-nine, was a former president of the State Medical Society. He practiced medicine fifty-six years, till his retirement in 1929

Columbia County

THE ANNUAL MEETING of the Columbia County Medical Society was held on October 4 at the Hudson City Hospital, with a business meeting in the morning, at which the election of officers resulted as follows

President, Dr Lawrence J Early, *Vice-President*, Dr Leon J Shank, *Secretary-Treasurer*, Dr Henry C Galster, *Delegate to State Medical Convention*, Dr John L Edwards, *Alternate*, Dr Henry J Noerling, *Board of Censors*, Drs S V Whitbeck, C G Rossman, Frank Maxon, Charles Nichols, and Hugh G Henry

Luncheon was followed by a scientific meeting at which Dr L C Kress of the State Hospital for the Study of Malignant Diseases, of Buffalo, spoke on "Diagnosis and Cure of Uterine Carcinoma"

Erie County

THE PUBLIC HEALTH COMMITTEE of the Medical Society of the County of Erie, arranged fourteen meetings for physicians in the interests of Pneumonia Control, on October 10 to 14

At each meeting, the sound film "The Technical Aspects of the Intravenous Serum Treatment of Pneumonia" was shown, and then followed a general informal discussion

The Speakers' Bureau, through its chairman, Dr Harvey P Hoffman, has arranged for ten to twelve meetings for the Home Bureau, beginning October 28 and ending December 10, so that the Medical Society this year is providing an extensive program on Pneumonia Control

New York County

AN EXPERIMENT BY WHICH public medical clinics may be used by general practitioners without fear that they will lose their patients entirely has been launched by a committee of the Medical Society of the County of New York

The experiment will be limited for the first year to fifty or sixty physicians practicing in the poorer sections of the city. They will be encouraged to send patients needing expert diagnosis to the clinic, after which the patients will be returned to the private practitioner for treatment and care

Dr Paul Sheldon, former head of the Vanderbilt Clinic of the Columbia-Presbyterian Medical Center, is chairman of the subcommittee of the society which has worked out the plan

In the past, it was explained, physicians have been unwilling to send their patients to clinics, fearing that the patients would not return to them

The present plan would make the clinic responsible only for the diagnoses of diseases which are beyond the training or facilities of the general practitioner. Once the clinic had properly "worked up" the case, the care would be left to the patient's own family doctor

Dr Sheldon said that several physicians who practice among the poorer people already had signified their willingness to co-operate on an experimental basis

A strict checkup on all patients' financial conditions would guard against chiseling, Dr Sheldon said

OF EVERY TEN PREMATURE BABIES born in New York City, seven die. Needlessly, in some cases

A subcommittee of the New York County Medical Society and a committee appointed by Dr John L Rice, Health Commissioner, is engaged in studying methods of reducing this heavy mortality

These committees have determined that little can be done unless the city provides these two services

1 Speedy transportation of prematurely born infants in thoroughly equipped ambulances

2 Hospitals conveniently situated, with modern facilities for the care of premature babies

The importance of proper hospital care is proved by the fact that in one well-

equipped maternity hospital in this city only twenty five per cent of premature infants die.

The problem of the premature baby has been met in Chicago and doctors here are analyzing the methods used in that city.

When a premature baby is born in Chicago, a central station established by the Board of Health is notified immediately. An ambulance, equipped with a heated bed or incubator box and devices for meeting all complications, is dispatched.

DR. ALEXANDER FRASER professor of pathological histology at New York University and Bellevue Medical College, died on September 18 at his summer home at Beechurst, aged sixty nine.

THE NEXT CLINICAL CONFERENCE of the medical staff of the New York City Bureau of Social Hygiene will be held at the Department of Health 125 Worth Street New York City, on November 16, at 8 30 P.M. The meeting will take place in the Conference Room on the second floor of the Health Department Building.

The following program will be presented

1 "Neurology in the Syphilitic Patient" by Dr George A. Blakeslee, Director of Neurology in the New York Post Graduate Medical School of Columbia University

2 "Gastro-enterology in Syphilis" by Dr Milton Bridges, Assistant Professor of Medicine, Post Graduate Medical School and Hospital, Columbia University

3 "Cardio-vascular Syphilis" by Dr I. Ogden Woodruff, Director, First Medical Division, Bellevue Hospital

Otsego County

A CONFERENCE ON RURAL MEDICINE was held at the Mary Imogene Bassett Hospital in Cooperstown on October 7 and 8 with an important list of distinguished speakers from all parts of the United States.

Queens County

A SYMPOSIUM ON SKIN DISEASES will be conducted at the Queens County Medical Society Building on November 14 15 16 and 17 at 9 o'clock, with Ida J. Mintzer, M.D. F.A.C.P. presiding. An outline of the course is as follows:

NOVEMBER 14—"Common Skin Conditions," by Dr Ida J. Mintzer. In this symposium Dr. Mintzer will attempt to describe as many of the common skin dermatoses as time will allow, such as inflammations of the skin diseases of the appendages with case presentation and lantern slides.

NOVEMBER 15—"New Growths of the Skin," by Dr Charles Miller. A description and dif-

ferential diagnosis of the various types of cancer and precancerous conditions of the skin also some of the more common granulomas of the skin. With lantern slides.

NOVEMBER 16—"Parasitic Diseases of the Skin," by Dr Joel Schweig. Some of the important parasitic diseases will be discussed. Diseases due to animal parasites, diseases due to vegetable parasites, tuberculosis and T.B.C. in diseases of the skin.

NOVEMBER 17—"Therapeutics of Common Skin Diseases," by Dr Rudolph Boenke. In this talk Dr. Boenke will describe the treatment of some of the common skin conditions and will present various formulae of the drugs used, and their application.

Washington County

DR. WILLIAM B. NUZZO was elected president of the Washington County Medical Society to succeed Dr Samuel J. Pashley at the annual meeting in the Hudson Falls Court House, on October 4.

With Dr. Nuzzo will serve Dr V. K. Irvine vice president, Dr Denver M. Vickers secretary, and Dr Charles A. Prescott treasurer.

The board of censors named was Drs. E. B. Jarrell, William C. Cuthbert and Charles H. Holmes. Chairmen appointed included Dr William A. Leonard, legislation and Dr Michael A. Rogers, public relations. Dr Vickers was elected delegate to the state medical society convention.

During the afternoon session the president's address was given. Dr Pashley spoke on "The Importance of Rest in Pneumonia."

Westchester County

THE WESTCHESTER COUNTY Medical Society launched a comprehensive year round program of public health education on September 22 at its first Fall meeting held at New York Hospital Westchester Division. This program, under the direction of the public health committee, has for its primary purposes the dissemination of authoritative health information of practical value to as many of Westchester's lay citizens young and old as can be reached by the Medical Society itself and the various lay health organizations, health departments and other agencies which will be asked to cooperate.

Each month there will be a special emphasis upon some particular public health topic. September was devoted to the organization of the plan and special emphasis on the desirability of periodic health examinations for adults and children. In October the subject was mental health. In November attention will be called to cancer. In December the subject will be the conservation of eyesight and hearing, and reduction of traffic accidents.

Hospital News

Glass "Wards on Wheels" to Protect Babies

SUCCESS IN SAFEGUARDING the health of babies in hospitals and nurseries by means of a "ward on wheels," made of shatter-proof glass, was announced recently by Dr. Bela Schick, head of the children's department of Mount Sinai Hospital, at a meeting sponsored by the New York and Brooklyn Federations of Jewish Charities in the Blumenthal Auditorium, 1 East Ninety-ninth Street, New York City.

Dr. Schick, originator of the famous Schick test for diphtheria, said that the results of three years of experimenting with the new unit had established it as the only practical method by which to isolate babies from infectious diseases, and at the same time, prevent the spreading of infections.

Designed for babies ranging in age from new-born to six months, each "ward on wheels" has room for five patients, Dr. Schick said. The unit consists of five cubicles, each inclosed on four sides by sliding panels of unbreakable glass, set within a framework of steel upon rubber-tired wheels

Prevents Cross-Infection

The principal function of the new device is the prevention of cross-infection from colds and other respiratory ailments, such as bronchitis, pneumonia and whooping cough, according to the child specialist. But it has also proved to be invaluable for the care of babies suffering from infectious diseases, he said.

Dr. Schick, who is co-inventor of the unit with Dr. Hans Pirquet, of Vienna, established the first glass ward in Mount Sinai Hospital three years ago, later adding two more units, which are in use today.

Pointing out a human side of the invention, the doctor said that, whereas it was once almost impossible for parents to visit their sick babies without danger of spreading infection, now visits can be made with a minimum of peril. The chances of infecting the child with a disease from the outside today are slight, he added.

Glass Always Shields Babies

Possible infection from those who come

in contact with the babies is precluded by the fact that the outside panel is raised only half way, so that a wall of glass is always interposed between the faces of doctors, nurses and babies. Excellent ventilation is provided in each compartment with a free circulation of air from above, Dr. Schick explained.

Moreover, the possibility of cutting off the violet rays, invaluable to the growth and health of babies, has been taken under consideration, and the little patients are given violet ray treatments at regular intervals.

It generally adopted, Dr. Schick said, the "ward on wheels" may result in doubling or tripling the number of babies that can be cared for with safety in nurseries and hospital wards.

Another desirable feature is that the perambulating ward can easily be rolled to the roof or terrace for fresh air and sun-baths.

Only Six in Use

Illustrating his lecture with lantern slides, Dr. Schick showed that babies could be removed from the cubicles. It is possible to feed them, examine them, and even administer complicated medical care without disturbing them.

He recalled that in the past the hospitalization of babies was not even attempted because doctors deemed it unwise to separate them from their mothers.

The mortality of infants due to septic and respiratory infections during the first years that hospitals began taking babies as patients was appalling, Dr. Schick said. Open wards were abandoned in the care of infectious diseases, and isolation cubicles, not practical because of their size and expense, were constructed, he continued.

The discovery of the "ward on wheels" was made while doctors throughout the world were having difficulties with bulky cubicles.

The three units in Mount Sinai Hospital and a similar number in Vienna are the only ones in use anywhere, Dr. Schick concluded.

Across the Desk

The Doctor as a Business Man

THE STORY IS TOLD OF A clergyman, desperately ill, who was brought back from the gates of death by his family physician. He insisted on paying the doctor and the doctor just as stubbornly refused to take a cent. After the dispute had gone on for some time, the doctor said:

Look here, pastor, I will do my best to keep you from going to heaven, and you do your best to keep me from going to hell, and we'll call it square."

So the doctor wrote down another piece of free medical service on his books. And the books are full of free services, voluntary or involuntary, often decided by the patient, who thinks he needs a new car, or this or that, more than he needs to pay the doctor, or who has lost his job, or had a pay cut or finds his business in the red, and postpones his bills till prosperity or the sheriff comes around the corner. The doctor seldom resorts to the sheriff and prosperity seems a bit coy about appearing, so the doctor is the forgotten man on the ledger.

Compare him with other business men

That's one of the reasons why they say the doctor is "a poor business man." But is he? He might retort that the business man is a poor business man if we look at the bankruptcy figures, for the men trooping through the bankruptcy courts are the business men, not the doctors who are seldom seen there. The mighty railroad magnates too are poor business men to judge from the sad railroad reports over in the financial pages, revealing losses running into millions, so deep in the red that every report looks like a hemorrhage. The farmers are so hard up that the government is buying their excess crops with the money of the taxpayers (including the M.D.'s) while all the doctors ask of Washington is to be let alone. Farmer, lawyer, merchant, chief, rich man, poor man, beggarman, thief—they all seem to be poor business men any way you size them up and if the doctor can't collect his bills these days, he is in the same boat with everybody else sailing no one knows where, but hoping for the best. In normal times

before the slump hit us, the average income of doctors in this country was reckoned at around \$5,300 and it is safe to say that few other professions or occupations could match it. Some are poor some rich but take them by and large "run of the mine" or "run of the mill" the M.D.s compare favorably with men in any other walk of life. That's pretty good business.

The millionaire doctors

True, some doctors are millionaires. Some of them were far sighted in their choice of rich grandfathers, some proved irresistible to heiresses and some have that mysterious faculty for making money that tantalizingly eludes most of us. Everything they touch turns to gold. Seldom indeed are any millions made in the practice of medicine, but sometimes the physician finds he has two talents lying side by side within himself, one for medicine, one for business. And as business is done today the most successful business man is the one who renders the most service to his fellow men, so the doctor who dabbles in business is giving service, as we might say, with both hands.

Thus Dr. So-and-so is president of the local bank, and not only puts Jim Jenkins on his feet physically but helps his business grow into larger prosperity. An upstate physician who started to put his savings into real estate developed his holdings till they covered all one section of town and when he died a year or two ago he left the city the land for a park which will bear his name and give air and sunshine to countless children as long as the city endures. His good deeds live after him—because he had business sense.

This business instinct is a mysterious faculty as fickle and elusive as any other spark of genius that makes one man a painter and another a musician. The boy from the farm may become an artist in pastel a violin virtuoso or a motor man, a factor, and his sons may be nothing but common clay, grade B. Similarly, the doctor may have the money making gift, or not, as the fates decide, but it certainly is a

mistake to class all men of medicine together, and say, "the doctor is a poor business man"

Good Business? None Better!

We can go farther than that. What is a "good business man?" He is one who makes an outstanding success of his business. Very well, the doctor is in the medical business, he is in the business of restoring sick people to health. That surely is a line of business, just as much as running any shop on Main Street or any factory down back of the town. Well, how is he doing in his business—the life and health business?

Ask some of the folks who would not be alive today if it were not for the doctor—and they are everywhere, thousands upon thousands of them. In a mere hundred years life expectancy has been stretched from about twenty-eight years to nearly sixty. And not only is life prolonged—the working years are extended too. Not long ago there were only 600,000 people in this country over sixty-five. Now there are seven million, half of them gainfully employed. That's good business.

Some of the scourges wiped out are yellow fever, smallpox, and plague. Tuberculosis is "on its way." Pneumonia, diabetes, and other old-time fatal disorders are being conquered. Babies used to die like flies in summer of cholera infantum, while now the curve of infant deaths in New York City shows an actual sag in summer! Everyone has noticed, too, how much taller, stronger, and healthier our young folks are today than their parents and grandparents were. One reason is that the doctor now begins to take care of them six months before they are born, and then fends off most of the ills that used to waft them away to heaven in thousands and hundreds of thousands. Good business? None better!

What the Public Think About It

Another test is to ask how the doctors stand in the eyes of the public in their business. If they were poor or below par in their enterprise, their influence would be weak or nil. Well, only a few years ago the doctors, through their national association, investigated the medical schools and decided that about half of them were not up to the mark. The Association had no legal power over these schools, but the half that felt its

frown collapsed and fell as if struck by a blight. Hospitals struggle and strive to get on the Association's "approved" list, and medical manufacturers are proud to display the "approved" label.

The doctors have no millions of votes to brandish over the heads of lawmakers at Washington and the state capitals, indeed, they number only some 150,000 in a population of over 130,000,000, yet their wishes have prevailed for years to halt the onslaught of wild legislation urged every session to break down the wise statutes that safeguard the health of the people. Why? Because the lawmakers have come to regard and respect the word of the physician against all comers trying to vilify him and impair his work. Is that the mark of a "poor business man" in the business he is carrying on? What other business can equal it?

The comical side of it is that the official trust-busters in Washington have discovered that the medical business man is a trust magnate, an octopus, a devil-fish in disguise, and he is to be dragged to the bar like a criminal for daring to oppose a piece of socialized medicine in Washington. It is perhaps impossible to satirize it better than is done in *Southwestern Medicine*. Thus

So much has been said about the recent action of the Department of Justice in dragging the medical profession of America into a criminal prosecution, that most of the angles of that peculiar bit of business have been explored. But there must occur to many men certain new thoughts

Who would ever have thought that old Doc Jones, the family physician, was such a sly devil under his rather kindly exterior? Just imagine the black thoughts in his mind when he wrapped little Johnnie's cut finger. Can't you just see the criminal intent in his eyes when he delivered your own baby? What dastardly thoughts were fermenting in his mind when he gave that antitoxin that saved the neighbor's kid from death by choking that winter diphtheria swept the village? What clever scheme was he pondering that night he got your appendix? What horrid plans did he have when, in trying to wipe out small pox, he fought for compulsory vaccination in his neighborhood?

It must be a great surprise to the American public to now learn that the doctor whom they have trusted through a life time is a blackened criminal, scheming and conniving against their welfare. Indeed Jehovah, Himself might be surprised in this case.

Well, of all the — —!!

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

Die Therapie der Thrombose. By Dr Ernst Friedlander. Octavo of 117 pages, illustrated. Leipzig und Wien: Franz Deuticke, 1938. Paper RM 6.00.

Claude Bernard Physiologist. By J. M. D. Olmsted. Octavo of 272 pages, illustrated. New York, Harper & Brothers, 1938. Cloth \$4.00.

The Biology of Arteriosclerosis. By M. C. Winternitz, M.D., R. M. Thomas, M.D. and P. M. LeCompte, M.D. Octavo of 139 pages, illustrated. Springfield, Charles C. Thomas, 1938. Cloth \$4.00.

The New International Clinics. Original Contributions, Clinics and Evaluated Reviews of Current Advances in the Medical Arts. Edited by George M. Piersol, M.D. Volume II, New Series One, 1938. Octavo of 315 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1938. Cloth \$3.00.

A Synopsis of the Diagnosis of the Acute Surgical Diseases of the Abdomen. By John A. Hardy, M.D. Duodecimo of 345 pages, illustrated. St. Louis, The C. V. Mosby Company, 1938. Cloth \$4.50.

The Life of Chevalier Jackson. An Autobiography. Octavo of 229 pages, illustrated. New York, The Macmillan Company, 1938. Cloth, \$3.50.

The Chemistry of the Steroids. By Harry Sobotka. Octavo of 634 pages. Baltimore: The Williams & Wilkins Company, 1938. Cloth \$8.50.

The Infant. A Handbook of Modern Treatment. By Eric Pritchard, M.D. Octavo of 744 pages, illustrated. Baltimore: William Wood & Company, 1938. Cloth \$6.00.

Papers on Psycho-Analysis. By Ernest Jones, M.D. Fourth edition. Octavo of 643 pages. Baltimore, William Wood and Company, 1938. Cloth \$8.00.

The Pituitary Gland. An Investigation of the Most Recent Advances. Volume XVII of a Series of Research Publications of the Association for Research in Nervous and Mental Disease. Octavo of 764 pages, illustrated. Baltimore: The Williams & Wilkins Company, 1938. Cloth \$10.00.

Chronic Intestinal Toxemia and Its Treatment with Special Reference to Colonic Therapy. By James W. Wiltse, M.D. Duodecimo of 268 pages. Baltimore: William Wood & Company, 1938. Cloth \$3.00.

The Occupational Treatment of Mental Illness. By John I. Russell, M.B. Octavo of 231 pages, illustrated. Baltimore, William Wood and Company, 1938. Cloth \$2.50.

REVIEWED

A Textbook of Ophthalmology. By Sanford R. Gifford, M.D. Octavo of 492 pages, illustrated. Philadelphia, W. B. Saunders Company, 1938. Cloth \$4.00.

This book is a manual and a good one of the essential facts of modern ophthalmology for students and general practitioners. The material is presented in the orthodox manner, the opening chapters being devoted to the various methods of examination of the eye, and then in regular order chapters on refraction and on the diseases of the various parts of the eye. The final chapters are brief ones on ocular therapeutics and the eye in general diseases. The appendix of ten pages describes in rather detailed manner appraisal of loss of visual efficiency, standard method approved by House of Delegates of the A.M.A. This is not the method used in awarding compensation in New York State but many believe it should be.

There are 249 excellent illustrations but unfortunately only ten colored plates though many of the fundus illustrations are from photographs. As one goes through this book

one realizes that the author has used excellent judgment in his selection of the material to present in such a circumscribed work and that the presentation is thoroughly modern in method and content—it is ophthalmology up to date in a small compass. The book deserves and is likely to enjoy a wide popularity.

E. CLIFFORD PLACE

Diseases of Women for the General Practitioner. By Paul Titus, M.D. Edited by Morris Fishbein, M.D. (National Medical Monographs). Duodecimo of 320 pages, illustrated. New York: National Medical Book Co. Inc. 1937. Cloth \$3.00.

This book, one of the national medical monograph series, has been edited by Morris Fishbein but what part the distinguished editor played in its production is not clear. Very simply and clearly written it aims to set down the bare essentials of etiology, diagnosis and treatment of gynecological conditions. All the illustrations which have been chosen have been reproduced from that excellent book "The Management of Obstetric Difficulties," by Titus. Very few

operations have been described. Simplicity is the keynote. As one would expect from Titus, the chapter on sterility is the best.

CHARLES A GORDON

Fractures and Dislocations Volumes I & II by Philip Lewin, M D Edited by Morris Fishbein, M D (National Medical Monographs) Duodecimo of 698 pages, illustrated New York, National Medical Book Co., Inc., 1937 Cloth, \$6 00

This work is an elementary treatise on fractures and dislocations. The subject matter is clearly written but not detailed to any extent. It is sparsely illustrated and the body of the text is printed in large type on poor paper. The book is very well suited to the needs of students or nurses as a text for the study of elementary principles of fracture work.

H WRIGHT BENOIT

X-Rays and Radium in the Treatment of Diseases of the Skin. By George M MacKee, M D Third edition Octavo of 830 pages, illustrated Philadelphia, Lea & Febiger, 1938 Cloth, \$10 00

Twenty years ago Doctor MacKee published the first edition of this book. At that time the use of radium was but poorly understood by the general profession, and x-rays were none too familiar in their proper usage. At once this excellent work found its place as the authoritative manual of procedure. Its author knew his subject, and the reader was given detailed instructions concerning the use of one or both of these physical agents and, because of his wide experience, what could be expected from their use in diseases of the skin. In 1927 a second edition became necessary to meet the increasing demand, and Doctor MacKee practically rewrote a major portion of the book, bringing the work fully up to date. He introduced chapters written in collaboration with colleagues especially familiar with certain special branches. In the present edition the same effort on the part of the author to give his readers the best, latest and most authoritative thought is evidenced by new chapters written in collaboration with such masters as Edith Quimby, the physicist of the Memorial Hospital, who writes at great length on the physics, biology, apparatus, and instruments. Dr Fred Wise has augmented his former chapter on the treatment of psoriasis, lichen planus and the hematopoietic diseases. Dr Hamilton Montgomery of the Mayo Clinic, Dr George Lewis, Dr Henry D Niles,

Dr Franklin Grauer, Dr Arthur Desjardins, Dr Cipollaro and Harold Bouton, Esq., from the list of those gentlemen whose expertness in their special branches make the book invaluable to the specialist, the general practitioner and the student alike. The chapter on the medico legal relations is especially valuable.

In the introductory preface, which all should read, Doctor MacKee calls attention to the changing thought throughout the world concerning the virtue of Roentgen rays in the treatment of many conditions wherein newer, and in some instances, better remedies have been discovered, and yet, in spite of all that has transpired, X-rays still may be considered "as constituting the most important single therapeutic agent in the armamentarium of the dermatologist."

NATHAN T BEERS

Practical Bacteriology, Haematology and Animal Parasitology By E. R. Stitt, M D, Paul W Clough, M D & Mildred C Clough, M D Ninth edition Octavo of 961 pages, illustrated Philadelphia, P Blakiston's Son & Company, Inc., 1938 Cloth, \$7 00

Practical Bacteriology, Hematology, Parasitology by Stitt, Clough and Clough in its 9th edition adheres to the traditional excellence of its predecessors. With age it has acquired weight, but of such a character that its usefulness has been broadened and increased. It is a tome of 961 pages, many of them packed with small print, and most with still smaller letters. If any criticism were to be voiced, it would be that the reading matter might have been made easier on the eyes.

The subject matter is divided into the usual orthodox parts, as per the title of the book. The classifications and nomenclatures are based on the modern concepts. Methods are selected with unusual discrimination and clearly and precisely described. Clinical significance, limitations and interpretations of laboratory procedures are emphasized. The volume is aptly and profusely illustrated, the color plates being exceptionally beautiful.

At the end of the book is a collection of general miscellaneous but useful information, which should be of great value to any laboratorian. The book, in the opinion of the reviewer, has fulfilled its purpose as a valuable source of reliable information to the physician and technician in almost every field of medicine.

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THE DOCTOR AT THE CROSSROADS

NATHAN B. VAN ETTEN, M.D., *New York City**Former Speaker of the House of Delegates of the American Medical Association*

"Medical service for all Americans demands the propagandist for Government Administration and supports his thesis by claiming that medical service is neither available nor willingly given.

The medical profession denies the truth of both of these statements.

The profession is numerically ample its generosity is traditional and approximately twenty per cent of all hospital beds are unoccupied.

Medical service for all the people has long been an objective of the American Medical Association.

Better medicine through better educated physicians is constantly studied by its councils. The Council on Medical Education and Hospitals promotes these ideals every day in the year.

There are people who have no medical care, there are people who do not seek medical care, there are others who object to medical care, and there are sick people who do not know how to find medical care—these people must be surrounded by the protecting arms of the public health service.

The medical profession makes no claim to flawless service but it is most unfair to claim that no progressive effort is being made to improve it.

Postgraduate education is offered to the physician at teaching centers and is also carried to him in the country in the belief that his education must go on as long as he lives—not only in the interest

of sick individuals, but in the interest of every citizen of the country.

There has never been a time of greater need for leaders. There should arise in every part of our country men filled with the consciousness of the importance of furnishing better medical service to the American people.

The medical profession must not rest upon the laurels of accomplishment. The fact that our medical service is said to be the best in the world does not justify relaxation of efforts to make it better.

Clinical students, research students and students of social philosophy must continue to pursue the elusive secrets of pathology and at the same time apply themselves to broad practical application of their knowledge to the improvement of the public health. Raising the cultural levels of science is no more important than raising the levels of social intelligence.

The American Medical Association has been reviled as reactionary—our criticisms are valid the respect with the whole medical profession.

If American medicine is to advance it must welcome constructive criticism from whatever source. The physician must be encouraged to express himself in the meetings of his professional society where he can.

Some of the criticisms of the profession seem to be perfectly

Read before the Knox County Medical Society October 1938

physicians who chose to ignore this procedure and sent their complaints through the public press. Criticism from without seems to have come from politically-minded people who style themselves experts in social philosophy. It is believed that few of them have had bedside experience.

The fact that most of the 110,000 members of the American Medical Association are trying to take care of sick people does not absolve them from valid charges that they are failing to take an active interest in broader fields of medical service.

How can this interest be stimulated? How many physicians are informed about the progressive work of their delegates at the recent special session in Chicago? How many have read the minutes published in the *Journal of the American Medical Association* of September 24? How many physicians read anything in their Journals beside the articles which discuss the special problems which confront them in their daily practice? How many physicians read their Journals at all?

The physician reads his local newspaper and finds himself accused of something akin to criminal negligence. He senses a crisis in his professional life. Where shall he go from here?

He sits at the crossroads in great perplexity. He reviews with satisfaction his evolution from the days when he was a barber or a servant of a wealthy patron up to the time when he became licensed by society to practice healing arts, and recognized and respected because of his knowledge and ability.

Introspectively he is sorry for himself. His self-esteem has been hurt by investigative research and criticism of his effectiveness not only as a social agent but as a technician.

His education has been criticized, even his character has been assailed.

He has heard himself branded as reactionary, as a merchant of health, as a Robin Hood, as a dishonest fee splitter, as a criminal abortionist or as a cheater of insurance companies. His ethics have been reviled as mere facades. He is unhappy because his income is shrinking while he sees unnecessary invasion of his field by government agencies.

If he is an average man, he realizes that competition at his own level is unnecessarily severe because too many are permitted to divide his opportunity. In spite of all such discouragement he is generally ethical and seldom yields to temptations to escape from his distress by devious paths. He is still a member of the society of educated gentlemen and he tries to justify himself.

He knows that the practice of medicine has greatly changed in the last twenty years. Preventive medicine has largely eliminated diseases which formerly absorbed much of his effort, and whether he likes it or not he must cultivate new fields. He knows that biological results will always create new problems.

Adolescence and senescence and casualties, and malignancies will continue to engage his earnest thought, but his major function may possibly lie along the lines of education. Life has been externalized by science which has progressed from one objective revelation to another. Standards of living are constantly changing and challenge deliberation. The doctor must not only study constantly to understand them and their effect upon the health of our citizens, but he must prepare himself for leadership of social currents so that they may become assets instead of perils to our civilization.

In the presence of the greatest literacy ever known health education may be expected to have increasing value, perhaps it has, but the great American dream is luxurious living, constantly inspired by cheap promotion. Youth is fascinated by glamorous prospects, succumbs to salesmanship which urges pleasure as an immediate objective. Health means nothing until it is lost. Some people are talking about the man of tomorrow, that man is the doctor's job. He is his job for biological reasons to keep him fit for tomorrow, he must be educated, he must be taught to protect himself from infection, and from early senescence. It is the doctor's job to rise from his contemplative seat at the crossroads and to keep himself actively organized for the protection of the public from false ideas, it is his job to educate himself not only in the field of preventive medicine but in efficient citizenship.

In his great Phi Beta Kappa oration,

Alexis Carrel urges the promotion of "a center of synthetic thought, a focus of collective investigation of human problems. In fact, into an institute for the construction of the civilized."

"Is it not more important to improve man than the goods consumed by him?" he insisted. "Are health and comfort of any value if we become mentally and spiritually worthless? Those who have given their lives to the search for the prevention and cure of disease are keenly disappointed in observing that their efforts have resulted in a large number of healthy defectives, healthy lunatics, and healthy criminals. And in no progress of man."

"As far as I am concerned," Dr. Carrel concluded, "I intend to devote the rest of my life to the problem of developing man in his organic and spiritual entirety. For the quality of life is more important than life itself. We must now use theoretical and applied science, not for the satisfaction of curiosity but for the betterment of the self and for the construction of truly civilized man."

Will the physician at the crossroads respond to such a stimulus? The fact that more than half of the million hospital beds in the United States are occupied by insane patients is a challenge to every doctor in the land.

The hesitant doctor looks back upon the long uphill road which he has climbed; he looks ahead and sees only more difficult heights, he looks down into a valley of indecision. Will he slip into decadence or will he become a fighter for whatever he thinks is right?

The relation of the physician to society assumes acute importance in the presence of experimentation under the aegis of social security. Extraordinary political changes in every part of the world, reversion in many countries from democracy to autocracy, tendencies to centralization of authority in the United States, and submergence of the individual in mass movements, cannot fail to disturb practitioners of medicine who have been developed under the American tradition. American physicians must assume social leadership if they would avoid the roles of pawns in the hands of those who are playing the games of political strategy. Membership in a profession seems to

have been regarded as an insulation against extra professional contacts. Pre-occupation with scientific interests has erected barriers to civic interest. Physicians have been called poor business men, impractical idealists. Their sentimentalism has been exploited by professional welfare organizations. Without the gratuitous service of the doctor many of these organizations would fail. So-called philanthropy is not dependable, but the physician will always work for the pay of experience, for the pay of prestige, for the pay of applause from the day of his graduation until the end of his life. Probably always hoping that fortuitous circumstance will send him wealthy patients whose gratitude may assume a really valuable material expression. The physician himself is chiefly responsible for his precarious position. He has been so busy in his own kitchen garden that he has seldom looked upon the fields outside.

American physicians face problems which, seemingly new, are almost invariably old enemies in new clothes. Old world experience should be studied by the lamps of history and lessons applied by intelligent militant physicians who are willing if necessary to become crusaders. Physicians will become effective only when they stand upon their own solid ethical foundations, and become civic conscious.

The physician is often the priestly guide, counselor and friend and confessor. To fill such demands he must, himself, possess moral quality and educated intelligence. No one should enter the practice of medicine with the sole idea of being gainfully employed. Very few acquire wealth through the medium of medical practice. Many fail because they cannot fit themselves into a sympathetic social environment, are not real students of human beings as individual personalities, or are indolent or have not the moral fiber to preserve the rectitude inviolate under the seductions of expediency.

Organized medicine is not a trade union. Physicians are not selling commodities in competition with other merchants. They are not merchants of health, selling cures, or formulae, or medicines, or instruments. Physicians are professionals giving service for which they may or may not be paid, and they must expect

to give it regardless of fee. They are the privileged servants of the sick, and being obligated by an oath must carry themselves on loftier planes than those who buy and sell for profit.

The practice of medicine is concerned with three classes of people—the indigent, the large middle class, and a small group of people who may be called independently well-to-do.

All these people are better cared for in the United States than anywhere else.

A medical profession which includes large numbers of keen students has furnished striking advances in the last twenty-five years. Medicine has made extraordinary strides in epidemiology, in the therapy of diabetes, in the therapy of anemia, in the therapy of orthopedics, in brain surgery, in chest surgery, in radiation therapy. Scientific methods have replaced empiricism.

Medical schools are constantly striving to bring a high order of intelligence to the care of the sick. Hospital staffs are infused with teaching spirit. Hospital regulation by organized medicine permits no slackening of vigilance. Certification of specialists by examining boards does much to protect the patient from those who may be incompetent.

Sick people in the well-to-do group may buy all of these remarkable services. People in the large middle group may buy as much as they are able to pay for privately, and may avail themselves of elaborate hospital facilities at rates that range from maintenance costs to below cost services.

People in the indigent group have access to hospitals which are supported by the taxpayer and also receive the benefit of the most approved therapy.

Everybody may choose his own physician except those who seek free treatment in the hospital or clinic where they must accept the services of the physician who may be assigned.

There is very little criticism of the *quality* of medical care. The criticism concerns distributions, demands more free medicine, asks increased subsidy by government, meaning of course more help from the taxpayer, and looks to the implantation on the American people of some compulsory system such as one of those in European use.

Health insurance schemes abroad do not take care of the indigent, have not reduced morbidity, but have reduced the physicians to a very low place in the social scale. The present American system, however faulty, care for *all* classes of people with very much better success.

If the critics would compare the failures of distribution of medical care with the failures of the distribution of education, housing, of clothing or of food, they would doubtless discover that they are talking about the same groups of people.

The care of these people is outside the field of insurance. It is the problem of the taxpayer. Medical service for these people is the job of the physician and he must be paid for his work by the taxpayer.

Here is a task for the medical citizen. Let him step out of his professional seclusion, and let him participate actively in municipal affairs, let him realize that preventive medicine may be greatly advanced by eliminating unsanitary housing, by feeding the undernourished, by clothing those who are unable to so provide for themselves.

Is it not the task of the medical citizen to lead the thought of the taxpayer to the realization that the facilities for medical care of the indigent are his responsibility, that free hospital service must be extended, that perhaps the tax supported hospital must assume all of this burden with both intern and extern service radiating from the hospital to home care?

Is it not the task of the medical citizen to point out that under our present system, the landlord, the grocer, the clothier, house, feed and clothe the poor for *pay* only, while the doctor assumes their physical care in the hospital and in many homes without fee, and the landlord, the grocer, the clothier and other citizens expect him to continue this unfair sacrifice?

Let us put it baldly. Let the municipality take over the hospital care of the indigent, use the facilities of the hospital for home care of the indigent, and let the doctors who are concerned with this care be paid for their service.

There are already less than eight hundred people in the United States for every physician, and the average annual sickness is less than seven days. About

twenty-five hundred physicians die every year, while at present seven thousand take their places. You see that the mathematics are stacked against the physician and if he continues to prevail he will need some very realistic hard work to support his idealism. Another handicap is revealed in the studies of the Brookings Institute which showed that in 1929, a peak year, more than forty-two percent of American families received less than \$1,500 and almost sixty per cent less than \$2,000. Such incomes are a little more than subsistence requirements and provide very small margins to cover the emergencies of sickness.

The increasing dependence upon municipal hospitals by people who seem to need free care, the increasing demands upon physicians who serve these hospitals without pay and the increasing financial embarrassment of the voluntary hospitals, are indices which cannot be ignored. Many hospitals deeply in deficits are surrendering their independence to municipal support, an apparently inevitable trend.

Many hospital people who are unhappy over economic conditions think that they can cure situations by adopting service plans. Hospital service plans, now involving more than two million subscribers seem to be working well for the hospitals and indirectly for the physician.

All of these efforts are valuable evolutionary measures moving toward better public service without sacrificing the physician to bureaucratic domination. Intramural development of the hospital to the highest degree will not bring it to its true place in our social structure. The day of exclusion and seclusion is past.

Generous cooperation with all physicians and with social agencies must be developed. Hospital zones must be planned and all competent physicians living within the zones must be permitted the use of the hospital's facilities. Individualism has been sneered at by welfare groups which are struggling for warm places in snug bureaus, but after all is said and after studying all of the European service plans which employ more lay managers than physicians, which pay clerks more than doctors, we must pay tribute to the best traditions which we have in this country which are based upon the individual care of the sick by the individual physician.

The American physician represents the most highly educated group of the community but he rarely functions as a citizen. How can the medical profession expect consideration from our law makers while the physician stands aloof from the actual exercise of citizenship? It seems more important than at any time in our history that physicians should take positions of leadership in public activities thereby indicating their willingness to cooperate to the limit of their abilities in the promotion of projects which seem to have community value. In order to be effective, physicians must have more than superficial knowledge of the machinery of government, they must educate themselves to function as citizens in the best sense of whatever citizenship means or implies. Someone has said recently that many people pass unconsciously from adolescence to obsolescence. Unless American physicians can be aroused from their civic adolescence a similar judgment will be their inheritance.

300 E. TREMONT AVE.

SURGICAL 'GUILDS' TO BE FORMED

Establishment of clinical groups or guilds by the International College of Surgeons will make the college, formed in 1935, 'a world-wide teaching association comparable to none,' members of the United States chapter were told at Philadelphia, on October 14, by Dr. Andre Crotti of Cleveland retiring president.

These guilds, to which he referred as "organized post-graduate courses and surgical clinics conducted at specified intervals,

at which the leaders will teach some of the finer points of surgery' are to be formed in unlimited numbers 'dictated by the needs of the moment.' Participation would be compulsory for all members and fellows of the college.

'What the college wishes is to have outstanding surgeons of the world to act as mentors and educators for the rising generations of surgeons who in turn will some day be the leaders' he explained.

PROBLEMS IN KIDNEY PATHOLOGY

ALFRED PLAUT, M D , *New York City*

From the Department of Pathology, Beth Israel Hospital

When I was asked to talk a short time ago on the pathology of the kidney, I was practically forced to make up my mind what this term meant, and must admit that I did not reach a satisfactory conclusion. One thing, however, did become clear to me, that any attempt at racing speaker and audience, within something like half an hour, through the whole kidney pathology would lead to an unpleasant mixture of perplexing variety and tedious repetition. I, therefore, prefer to bring before you not straight kidney pathology, but rather our opinions concerning the meaning of morphological changes and their relation to the clinical pictures with which you are confronted in your daily practice and hospital work. The interrelation between kidney lesions, on the one hand, and lesions in other organs, on the other, shall be the keynote of this lecture.

The first picture in our short series of kidney lesions comes from the kidney of a fifty-three year old man who did not die of kidney disease, but from active rheumatic heart disease and pneumonia. The kidney was swollen and had many red spots.

These red spots are caused by the superposition of the extravasated blood in many more or less distended tubules. Most of the glomeruli look normal, in others, however, the capsular space is filled with blood, and there is inflammation in the surrounding tissue. The kidney, on the whole, does not look severely diseased, and there is not much inflammation. Occasionally, however, inflammation has started the destruction of tubules. A similar picture from another patient, who likewise did not die of kidney disease but of ulcerative endocarditis with many infectious complications, definitely shows the focal character of the lesion. There is no diffuse kidney disease, but even in the near-normal, kidney tissue are scattered circumscribed areas of hemorrhage and

inflammation. Under high magnification, one recognizes the blood-filled Bowman's capsules and corresponding portions of tubules, while the remainder of the tubules are normal.

This is not the anatomical basis of a kidney disease that kills. It is called hemorrhagic focal nephritis. You frequently encounter such cases in daily practice. When you examine the urine of a patient with febrile disease, you often see occasional red blood cells or numbers of red blood cells. You then must know that this is not to be taken very seriously, and you must not diagnose glomerulonephritis. The blood will disappear with the recession of the fever or a few weeks later. Kidney function remains unimpaired, blood pressure is low. As far as the relation of kidney disease to general infectious disease is concerned, this is the simplest case. The general infection has directly affected the kidney, probably single micro-organisms have attached themselves to the wall of a glomerular loop. By careful microscopic examination, one may find a small spot in the capillary wall swollen, with blurred outlines, sometimes one may even find the micro-organisms. In such areas the wall of the vessel becomes permeable and the above-described hemorrhage takes place. Severe forms of this disease can seldom be studied on the autopsy table. Thus, this kidney lesion, which is the direct result of a bacteremia, does not represent a clinically important kidney disease.

But there are other ways by which a generalized infectious disease can attack the kidney. As examples, let us take the cases of two children, age two and eleven.

Neither child died of kidney disease. The two-year-old child had a very severe pleuritic and pneumonic infection with purulent otitis media and other complications. There had been no urinary symptoms during life—specific gravity was high, no casts were found, the clear urine contained no albumen. At autopsy we were struck by the fact that under the ordinary polymorphonuclear leuko-

Read at the Graduate Fortnight of the New York Academy of Medicine, November 1, 1937

cytic inflammation of the purulent pleuritis, we did not find leukocytes in the superficial layers of the lung tissue, but plasma cells. In other organs also, in the kidney, for instance, a diffuse plasma cellular inflammation was found. There was no glomerulonephritis and no disease of the tubules. The absence of both could be expected from the lack of urinary findings during life. This diffuse interstitial plasma cellular nephritis did not manifest itself in the urine.

Most of the organs of this child showed this generalized plasma cellular inflammation even the far remote posterior lobe of the pituitary gland. But this child, in addition, had an entirely different reaction to the infection which raged throughout his body, namely, necrosis of arteries. Acute necrosis of the arterial wall with inflammation had led to infarction in the testicle. This process, entirely separate from the just-described inflammation, had taken place in the kidney pelvis of the child also.

Somewhat similar was the case of an eleven year-old boy who died from an indefinite infectious disease without important urinary symptoms. The kidney, which interested us most in this connection again revealed the interstitial inflammation and arteries surrounded by areas of inflammation containing no polymorphonuclear leukocytes. The same kind of inflammation was found between the kidney tubules as in the previous case.

Are we really dealing with kidney disease in these two children? Obviously not, as the clinical records and the follow-up of similar cases indicate. We namely do not know of a chronic kidney disease representing the healing phase of such lesions. This is not astonishing when we consider that the real excretory apparatus of the kidney in these cases is not severely affected. This is the acute interstitial nephritis which in many instances is only a part phenomenon of a generalized plasma cellular reaction in the body. Such a process widely differs from the direct ordinary inflammatory reaction as represented by the purulent pleuritis and the otitis media in the first patient, for instance. The recognition of this essential difference in the types of reaction brings us to the crucial points of kidney pathology.

We can hope to understand kidney pathology only when we go one further step beyond the old conception of the reaction of the body to an infectious agent.

We must consider other types of reaction as represented, for instance, by the plasma cellular interstitial inflammation. The best known example of this lesion is scarlet fever. The idea that allergic* conditions are important in kidney pathology originated thirty years ago when Bela Schick drew attention to the similarities between nephritis in scarlet fever and serum sickness.

Let us retain that same point of view as we venture now into a discussion of glomerulonephritis. We refrain from giving clinical and anatomical descriptions. Looking at one characteristic glomerulus from an early phase of intracapillary glomerulonephritis (in a middle aged woman), makes us realize how far remote such a picture is from what we generally consider acutely inflamed tissue. There is no fluid exudate. No leukocyte or other blood cells can be found in the tissue. All we have is an increase in the number of nuclei (indicating an increase in the number of cells), and a swelling of the walls of the capillary loops. In addition, we see something that seems to be directly opposite to our conception of acute inflammation. There namely is no hyperemia in this diseased glomerulus; there even is an anemia, while in the normal glomerulus the loops are filled with red cells. We are accustomed to this histological picture, and do not realize any more that it is a slap in the face to the orthodox concept of acute inflammation.

In the patient whose glomerulus we have studied, we are unable to establish a direct connection between the infection that killed the patient and the kidney lesion. This woman died of peritonitis following a gynecological operation at the same time she had acute nephritis and acute cholecystitis. We would not even try under these circumstances to find the micro-organisms which we might have cultured from the blood stream in the glomerular loops. The lesion is a diffuse one, it is a systemic disease of this capillary part of the kidney. It is not a direct microbic effect as in the relatively harmless focal nephritis which we see in infectious diseases. We thus have to look for other mechanisms which may bridge

* For the sake of convenience, "allergic" condition is used here in a somewhat loose fashion.

the gap between infection in the body, on one hand, and the occurrence of this very peculiar lesion which is called glomerulonephritis

If you stop to consider for a moment what are the most important clinical items in a patient whose kidney glomeruli give this picture, there will be foremost in your mind the edema and the hypertension. Have we a right to say that the edema and the hypertension are caused by this glomerular lesion? We certainly do not.

There are rare cases of fatal diffuse glomerulonephritis with normal blood pressure and without edema. Conversely, a patient may die with the clinical symptoms of glomerulonephritis, but the most careful examination of the slides does not reveal a trace of glomerulitis. Such occurrences, rare as they may be, indicate that we have no right to assume a direct causal relationship between the glomerular lesion and the most important clinical findings. That leads to the conclusion that our most important kidney disease—namely, glomerulonephritis—is not strictly speaking a disease of the kidney. This becomes less of a paradox when we realize that the glomerulus, consisting mainly of capillaries, is not a part of the kidney parenchyma, but also is a part of the vascular system. In an anticipating manner, it might be said right here that general capillary disease, with or without a morphological equivalent, probably is the most important underlying condition for the rise in blood pressure, as well as for the edema, in glomerulonephritis. We cannot say that we have a generalized capillary disease in the kidney since the intertubular capillaries, even in most severe glomerulonephritis, generally do not show important changes.

When a glomerulonephritis lasts for a longer time, the histological picture is changed by the addition of the extracapillary process which finally leads to fibrosis. The slides we are using for the demonstration of this subacute or subchronic glomerulonephritis, come from a twenty-year-old girl who died after a most peculiar clinical course—a chronic infection in the maxillary sinus, obviously caused by parasites, followed by an unusually severe laryngitis which necessitated tracheotomy. Anuria developed and after ten days, she died, without elevation of

blood pressure. In following our line of thought, we do not believe that the staphylococci which we found in the larynx of this patient directly caused the glomerular lesion. We have to assume the existence of some immunological mechanism which caused the glomerular lesion, and this disturbance somehow was started by the presence of a severe infection in the body. This patient had albumen in the urine, no casts had been found, and she died in uremia.

The variety of diseases which may lead to glomerulonephritis is very large, and I want to show you one of the most unusual ones. A thirty-six-year-old man died in this hospital (Beth Israel) with a clinical diagnosis of nephrosis and nephritis. At autopsy we found the kidney lesions diagnosed by the clinicians, but, to our astonishment, we also found amebic dysentery. The patient never had diarrhea. It hardly is necessary to mention that the glomerulonephritis in this case had not been caused directly by the amebae. The kidneys presented severe nephrosis and glomerulonephritis. The relation of both lesions to the infection with amebae and to each other remains obscure.

Summing up the ways by which infection might lead to kidney disease, we have, *first*, the direct infection. It results in focal hemorrhagic nephritis. Milder degrees of this lesion obviously are frequent and are of no major importance for what we strictly call kidney disease. *Second*, we must consider sensitization to some substances which might be introduced into the body from outside with an infectious agent (amebic dysentery, severe sinusitis, severe laryngitis), or which might originate in the body itself under the influence of an infectious process.

Sensitization to an endogenous substance may also play a role in patients who, out of a clear sky, develop acute urinary and other symptoms and are found to be afflicted with acute glomerulonephritis. I do not feel justified in leaving the subject of glomerulonephritis without at least mentioning the possibility of other mechanisms about which we may know nothing.

There are cases of nephritis, notably in subacute bacterial endocarditis where we do not find the ordinary glomeruloneph-

ritis, but where in more or less normal appearing glomeruli single loops are transformed into a homogeneous mass which stains red in the eosin (Loehlein lesion). It is easily understood, and generally accepted, that small particles which contain cocci from the vegetations of the mitral or aortic valve will be caught in a glomerular capillary, thus forming a direct embolic lesion. But this must not always be the origin. Occasionally, in such lesions one gains the impression that they have developed *in loco* and represent a swelling of the capillary wall, perhaps combined with some coagulation. In rare instances of septic disease without endocarditis, this lesion has been found in the glomeruli. One case is on record in which almost all glomeruli showed the lesion. This patient did not have hypertension. The percentage of diseased glomeruli in subacute bacterial endocarditis may be as high as seventy five per cent, but nevertheless the blood pressure may remain normal.

So far we have dealt with inflammation in kidney diseases. But, in the material of our hospital, the majority of so-called kidney patients are not patients with glomerulonephritis. They suffer from vascular kidney lesions, and with a certain reluctance, I now turn to that group of diseases. My reluctance will be easily understood by anyone who has ever entered into the labyrinth of riddles represented by the relation between kidney pathology and blood vessel pathology.

In discussing the microscopic pictures from two remarkable but not highly unusual, cases of hypertensive kidney disease I shall try to point out the importance, or the lack of importance of the different histological features in relation to the clinical picture, especially the hypertension. A section from one of the main branches of the renal artery of a forty year-old man whose clinical diagnosis was malignant sclerosis, gives the well known picture of very severe atherosclerosis. The atheroma had destroyed the elastic lamellae and, digging its way into the media had thinned out the wall.

If we stop here to see what kidney lesion would correspond to this vascular change, then we can mention with a moderate range of error, the so-called old man's kidney, the arteriosclerotic

kidney of Ziegler, which is not considered of great clinical importance today. Let us go one step further, a step down in the caliber of the vessel. In a branch of the third or fourth order, the lumen is extremely narrowed by fibrous connective tissue which represents an overgrowth of the intima. This step brings us deep into the riddles of vascular disease and hypertension. Does this overgrowth of intimal tissue really belong to the same disease as the atherosclerotic lesion of the larger branch? Nobody can answer this question. Has it something to do with an inflammatory process as indicated by the old name, productive endarteritis? The bulk of the literature concerning this question is awe-inspiring but no conclusion has been reached. However this arterial lesion is found in many noninflammatory contracted kidneys. The kidney tissue surrounding such arteries may look perfectly normal. When we go still further down in vessel caliber and study the intertubular arteries, then we see reduplication of elastic lamellae together with overgrowth of intima. This vascular lesion is very frequent in chronic glomerulonephritis, and sometimes it becomes difficult to decide whether we deal with a vascular lesion and a secondary glomerulonephritis or with a chronic glomerulonephritis and a superimposed vascular lesion.

Proceeding to the arterioles in our analysis of this kidney we find hyalinization and thickening of the walls with resulting narrowing or occlusion of the lumen. This is the usual arteriosclerosis which has its seat mainly in the kidney, but is found in other organs also.

However in addition to hyalinization of the wall and narrowing of the lumen, some small vessels exhibit necrosis to such a degree that only a smudge is seen in the section in place of the arteriole. The directly adjoining tissue may be without inflammation. But other arterioles are severely inflamed giving a picture like a small granuloma. This necrosis and inflammation take place in kidneys which do not harbor any acute or chronic inflammation. They may both be caused by some immunological mechanism as discussed above.

For decades this impressive narrowing of the small kidney vessels has been

linked in our minds to the most important symptom of chronic kidney disease—hypertension

But, in this point, the quantitative factor has not been sufficiently stressed. Narrowing and occlusion of arterioles outside the kidney are found in the suprarenal glands and pancreas, to some extent, much less in other organs. All these vessels together, represent a small fraction of the vascular system of the whole body. When we compare that with the cross section of the nonaffected blood vessels in the whole muscular system, in the fat tissue, and in the major portion of the gastrointestinal tract, then we shall see that the slightest dilatation of the arterioles in the nondiseased parts of the body must more than offset the narrowing of the diseased arterioles in the kidneys and in the few other organs. This brings to naught the possible pressor effect of arteriosclerosis.

I agree with the authors who say that to explain hypertension in a man with arteriosclerotic kidney disease is not much easier, nowadays, than to explain hypertension in the absence of kidney lesions. The kidney must have some obscure mechanism for maintaining its blood flow. In the physiological experiment, under conditions which reduce the blood flow of all other organs, measurements taken in the renal vein have indicated that the kidney maintains its normal blood flow for a longer time than any other organ. Little is known about the steering of this mechanism, and we cannot say how often a disturbance of this mechanism may be one of the factors that lead to hypertension in the presence or absence of arteriolar lesions.

We may give up the theory that sclerotic narrowing of arterioles is the main cause of hypertension, but we feel certain that it directly causes the fibrous obliteration of the glomeruli. Even that

has been doubted, and perhaps justly. Not only the glomeruli receive their blood from the afferent vessels which are so conspicuously narrowed by arteriosclerosis, but the tubules also are mainly nourished by these channels and therefore damaged by the decrease in blood supply. If we further remember that the tubules generally are the first portion of the kidney to show damage in any general disease, then we might expect them to suffer from the impaired vascularization as much as the glomeruli, or even more. Thus perhaps many a glomerulus owes its damage to atrophy of the corresponding tubules, as well as to the partial throttling of its blood supply. I, therefore, feel that it would be rash to jump at the conclusion that the death of the glomerulus is entirely and directly brought about by the narrowing of small arterial vessels.

Nothing satisfies our desire for knowledge better, than finding the morphological basis of the symptoms observed in the living patient. But we should be aware of the pitfalls. What we do find may be only one factor in many, perhaps not even an important one. Whether a finding represents a causative factor or an accompanying factor, or a sequela, is sometimes difficult to decide. By saying so, I do not want to minimize the value of morphological study. To the contrary, I believe in a renaissance of morphology, notably concerning diseases of small blood vessels. A new field of histopathology has opened up in the application of morphological methods to immunological problems. True, we cannot stain antibodies, but we can find morphological changes which indicate to us that an immunological reaction has taken place. We feel that much of the future study of kidney disease in man and laboratory animals lies in this direction.

BETH ISRAEL HOSPITAL

SCIENTIFIC EXHIBIT

Application blanks are now available for space in the Scientific Exhibit at the Annual Meeting at Syracuse, April 24, 25, 26 and 27, 1939. Attention is called to the fact that the meeting is earlier than usual and ap-

plications close on January 15. Blanks will be sent on request to Dr. William A. Krieger, Chairman, Committee on Scientific Exhibits, 103 Hooker Avenue, Poughkeepsie, New York.

ACUTE LYMPHATIC LEUKEMIA

- Report of Case Showing Unusual Number of Monocytes

HUGH C THOMPSON JR., M.D., Albany

From the Pediatric Service of the Albany Hospital

Cases showing monocytosis during the course of myelogenous leukemia are not infrequently observed. Montgomery and Watkins¹ recently reported this finding, and there have been two such patients on the medical service of the Albany Hospital within the last year. An increase of monocytes in lymphatic leukemia is much more rare, and, as far as the author has been able to find, has been reported in only two cases, both chronic.

Joltram's² was a woman of sixty-five years with lymphatic leukemia, who three years after the onset of lymphadenopathy, showed a total leukocyte count of 82,000 per cu mm, eighty-two per cent of which were mononuclear cells and seven per cent lymphocytes. After radiotherapy, the total leukocytes were 27,000, the mononuclears zero and the lymphocytes seventy-five per cent. A later count showed the leukocytes to number 5,000 of which thirty-two per cent were mononuclears. There is no record of supravital studies nor autopsy on this patient. The second case was a woman of twenty-nine years whose blood showed a picture of chronic lymphatic leukemia with many monocytes. This was reported by Montgomery and Watkins¹ who classified it as an example of the Schilling type of monocytic leukemia.

The case herein reported differs from the preceding in that it was a very acute case in a young child, and the period during which the monocytes predominated in the blood was very brief.

Case Report

B. W. female, aged two years, was admitted to the pediatric service of the Albany Hospital on July 3, 1937, with complaints of "infected teeth" and fever of six days duration. The illness had commenced with malaise and a chill, and the child had grown progressively worse up to the time of admis-

sion. Past history was irrelevant except that the teeth had always been poor. There was no history of any blood dyscrasia in the family.

Physical examination on admission revealed a well-developed and well-nourished critically ill child, restless and very irritable when disturbed. The temperature was 104.5°F, pulse 140 and respirations forty. The face appeared puffy, the lips were dry and cracked, the breath was fetid. There was an area of necrosis of the upper gums beginning at the left central incisors and extending posteriorly for two cm. A grey slough which bled when disturbed, covered the area. The teeth in this region were loose and two of them later fell out. The remainder of the gums was swollen and purplish. There was slight enlargement of the anterior and superior posterior cervical lymph nodes, but no other adenopathy. The liver edge was palpable three cm below the costal margin. The spleen was markedly enlarged, extending down to the left iliac crest, and medially to the umbilicus. The skin of the lower extremities showed a few small ecchymotic areas. The remainder of the physical examination was essentially negative.

Urinalysis revealed only a one plus acetone. Wassermann and Kahn tests were negative. Smears of the oral lesions showed spirillae and fusiform bacilli. A complete record of all blood counts is given in Table I. The differential counts were all made by the author and four hundred cells were counted in each instance. On all the smears a majority of the cells were smudges which were not included in the reported differential. The predominating recognizable cell on the first day was a large cell with a round or oval eccentrically placed nucleus. The chromatin was arranged in a reticulum, and contained one or two light blue nucleoli. A slight to moderate amount of clear blue cytoplasm was present. These cells appeared to be very primitive, and resembled the textbook picture of a lymphoblast or myeloblast. There were occasional cells with a similar appearance except for the presence of a moderate number of very fine reddish granules in the cytoplasm. These were thought

*Read at the Annual Meeting of the Medical Society of the State of New York
New York City May 11, 1938*

to be monoblasts which, according to Os-good,³ contain these granules at times

The succeeding days saw a rapid disappearance of the primitive cells from the blood stream along with a marked drop in the total leukocyte count. At the same time there was a marked rise in the percentage, although not in the absolute number, of monocytes, which on the fourth hospital day comprised 54.5 per cent of the white blood cells. During the next two days both the absolute and relative number of monocytes diminished markedly, although they were still above normal on the day of death. The monocytes seen appeared typical when studied in the smears stained with Wright's stain, and their nature was confirmed by supravital preparations made according to

spleen and liver diminished in size so that neither was palpable on the day of death. The temperature remained at a high level. Treatment consisted of venoclyses, a transfusion of 250 c.c. of blood on the fourth day, and cleansing of the mouth. The child expired on the sixth hospital day.

Autopsy showed the splenic pulp to be crowded in places with small round or oval cells which were apparently lymphocytes. The bone-marrow spaces were for the most part filled with round cells with markedly hyperchromatic nuclei. No cells which could be clearly identified as belonging to the myelocytic series were found in the marrow. The anatomical diagnosis was leukemic lymphomatosis of the bone-marrow and gangrenous stomatitis.*

TABLE I—HEMATOLOGICAL FINDINGS

	Hb in Gm	RBC in mil	WBC	Polys	Lymphocytes	Monocytes	Primitive cells
July 3	6.0	2.1	388,000	0.25%	5.25%	4.0%	90.5%
4				0.25%	12.50	12.25	75.0
6	7.5	2.5	35,000	0.50	43.75	54.50	1.25
7	7.5	2.5	18,000	2.50	76.0	16.0	5.5
8	8.0	2.5	8,000	1.0	83.0	14.50	1.50
	Peroxidase Stain			Granular 5%		Non- granular 95%	
4				48		52	
6							

the method of Sabin⁴ and Cunningham⁵ by Dr. L. W. Gorham of the Department of Medicine. In this method a drop of blood is smeared on a slide previously covered with a thin layer of neutral red and Janus green dye. The coverslip over the blood is rimmed with vaseline to prevent drying, and the preparation observed in a hot box at 37°C. With this technic, monocytes appear as sluggishly motile cells with a moderate number of fairly large pinkish granules, and fine bluish mitochondria frequently arranged in a rosette formation. They are distinct from all other cells of the blood. A differential count by the supravital method on the day when the monocyte was highest, agreed well with that done in the routine manner.

In the addition to the above, smears were also stained by the peroxidase method of Goodpasture, which is used to distinguish the granulocytic, or myelogenous, from the non-granulocytic, or lymphatic series of leukocytes. With this stain, monocytes usually show a few small granules in contrast to the many heavy granules of the polymorphonuclear series. Practically all the oxidase positive cells noted in the smear of July 6 were typical of monocytes.

The clinical course of this case was rapidly downhill. The stomatitis spread to involve both upper and lower jaws. The

Discussion

The origin of the monocyte is a question which has long interested hematologists.

Pappenheim believed that the cell came from lymphatic tissue, Naegeli and his followers have predicated that the monocyte has a myelogenous origin. Schilling,⁶ on the other hand, sponsors the triastistic origin of white cells, and believes that the monocytes have a separate origin—from histocytes, cells of the reticuloendothelial system. Again there are workers who believe that there are two types of monocytes—one derived from the histocytes, and one from the myeloblasts. The question has not been settled, although the work of Cunningham, Sabin, Doan,⁷ and others with the supravital technic has tended to establish the separate identity of the monocyte.

Monocytic leukemia has likewise been a subject of considerable dispute, having been described as a separate entity or a

*The author is indebted to Dr. Arthur Wright of the Department of Pathology for the autopsy report.

form of myelogenous leukemia according to the belief of the individual writer as to the origin of the monocyte. The presence of a considerable number of monocytes in cases which later were proven to be myelogenous leukemia has been used as an argument by the Naegli school to support their contention that the monocyte originates from the myeloblast. Our case which, except for the presence of the high number of monocytes, was typical of acute lymphatic leukemia, in no way suggests that the monocyte is derived from lymphatic tissue, but rather that this cell may be called forth into the circulating blood of leukemias of more than one type by a stimulus, the nature of which is as yet entirely unknown. It will be interesting as time goes on, to see whether monocytes may not be found more frequently in leukemias other than monocytic. It may be that in the future we shall be able to recognize the stimulus for the appearance of these cells.

Summary

1 A case of acute lymphatic leukemia

Discussion

DR. BREWSTER C. DOUST, Syracuse—I was very much interested in Dr. Thompson's report and his summary of this interesting case. In Syracuse Memorial Hospital we have had a somewhat similar case.

Male, white, age nine years, who demonstrates what appears to be the so-called monocytic type of leukemia. The first symptom was approximately three weeks before death, consisting of stomatitis which became progressively more extensive and eventually was associated with marked sloughing of the jaw. Except for this and slight generalized enlargement of superficial lymph nodes the physical examination showed nothing of importance. Two days prior to death there was hematuria. He ran a remittent type of temperature throughout the ten days in the hospital the high point each day varying from 101 to 105° F. Sterna bone marrow biopsy five days before death showed essentially the same picture as that described later in connection with the autopsy findings.

The first blood examination ten days before death showed rather severe anemia and WBC 7900 with 97 per cent mononucleated cells. The anemia tended to become progressively

is reported in a child of two years with hematological and pathological findings.

2 This case showed at one time in its brief course so high a percentage of monocytes in the circulating blood that a diagnosis of monocytic leukemia was considered. This finding has not been previously reported in acute leukemia in children and is very rare in lymphatic leukemia of any type.

3 The significance of monocytosis in leukemias other than monocytic is not known. It is felt, however, that no conclusions regarding the origin of monocytes should be drawn from their occurrence in myelogenous and lymphatic leukemia.

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worse except for some temporary improvement following transfusions. Leukocytes gradually rose during the first six days in the hospital to 184,000 dropping to 139,000 three days later. Almost all of the cells were large mononucleated cells, the nuclei tending to be rather irregular and frequently lobulated, the cytoplasm tending to show definite fine azure granules. Bleeding and clotting times four days after admission were normal, platelets 90,000. Smear from the gums showed numerous spirochetes and fusiform bacilli.

Blood culture four days after admission was negative.

Pathological findings. There was some diffusely scattered leukemic infiltration of the lungs, spleen, lymph nodes with marked diffuse infiltration of the bone-marrow of the sternum, ribs, and femur. The leukemia cells tended to be large and atypical with nuclei which tended to be irregular and multilobulated. The normal elements of the bone marrow were almost entirely replaced by these cells. There was also widespread infection of the liver, adrenals and spleen with a gas-producing Gram positive bacillus. In connection with the bacterial colonies there was usually rather marked necrosis with little or no inflammatory reaction.

We have come to feel that cases of temperature severe anemia, tendency to bleed and even leukopenia practically always turn out to be leukemias. Our series is about to

I wish to take this time to acknowledge our indebtedness in Syracuse to Dr. Great, Dr. Allen and Dr. Wyatt who work as a team on our blood dyscrasias.

be published and this monocytic type included and some of our conclusions are as follows. There is little doubt as to the tumor-like character of the leukemias involving the entire blood system and almost invariably invading all other tissues. Dr Groat has repeatedly shown, and it has been verified, active mytotic division going on in the blood stream. In leukemia the cells may be so abnormal as to be unclassifiable except as abnormal primitive blood cells, but it may take on in its differentiation some potentialities we recognize as that of granulocyte, lymphocyte, etc., but we are not dealing with normal tissue and we speak of resemblances only.

The classification of leukemias has suffered from an attempt to name each kind

as though it were a certain entity. It is far better to consider them exactly as we do tumors, as resembling certain types of tissue but not necessarily to be named specifically and classified absolutely on a normal tissue basis.

In the case that Dr Thompson reported, he is apparently dealing with primitive undifferentiated cells as suggested by the great variation in cell type. The difficulty in recognizing and classifying certain cells as belonging to any type is known to all of us, as has been ably pointed out by Dr Thompson.

It seems to me in certain types of acute leukemia, as is more common in infants and children, we are coming more to be satisfied with the diagnosis of acute leukemia.

REFUGEE DOCTORS EXCUSED FROM EXAMS

Refugee doctors may take up practice in New York State without having to re-pass examinations they took in their student days, under a Supreme Court order signed on October 15.

The order, issued by Justice Sydney Foster in Albany, restrained the Board of Regents from commanding that the doctors take new tests. At least one prominent German specialist could not pass the general State examination here this year. About 100 foreign-born physicians, some of them refugees from political and racial persecution in the dictator countries of Europe, are affected by the regents' ruling which required the physicians to pass an examination similar to that required of young graduates of medical schools here. Many of the physicians, although possessed of distinguished reputations in their countries, had insufficient knowledge of English to pass the required written test.

Under the order, the foreign physicians only will have to show that they completed courses in reputable medical schools and

practiced for five years.

The doctors' case was argued as an appeal from the Regents' decision by Professor Irving Mariash, of 29 Broadway, a member of the American citizenship committee of the New York County Lawyers Association.

"The statute does not require any examination," Justice Foster ruled. "The Regents' rule contravenes the statute and fixes a standard beyond that contemplated by the Legislature."

"Under this principle it became the duty of the Board to indorse petitioner's license if he submitted satisfactory proof that the same was issued upon requirements substantially equivalent to those in force in this State at the time, and also that he had practiced lawfully and reputably for the prescribed period."

"The rule adopted by the Board, however well-intentioned, directly contravenes the statute. The Board's discretion does not extend to any question of public policy that may be involved."

SCIENTIFIC EXHIBIT OF THE AMERICAN MEDICAL ASSOCIATION

Application blanks are now available for space in the Scientific Exhibit at the St. Louis session of the American Medical Association, May 15-19, 1939. Attention is called to the fact that the meeting is a month earlier than usual, and applications close January 5. Blanks will be sent on request to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn St., Chicago, Ill.

A two-year-old infant grew philosophical. "If I had my life to live over again," he remarked, "I would be a bottle baby so that there wouldn't be ashes falling into my eyes all the time."—*Med World*

An eminent physician says fifty per cent of the doctors would starve if people would learn to control their emotions. Yes, and ninety per cent of the politicians wouldn't be any too fat.—*St. Louis Star-Times*

CLINICAL EVIDENCE FOR CEREBRAL VASOMOTOR CHANGES

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Cerebral vasomotor changes may be caused by several factors. We shall consider these in the following manner:

1 Angiospasm secondary to local alterations in the blood vessels (especially in arteriosclerotic vessels), vessels the seat of luetic infection and areas of a vessel distant to embolic thrombosis

2 Cerebral vasospasm occurring in the course of Raynaud's disease, migraine or arterial hypertension

3 Exogenous substances such as hypertonic solutions lead barium chloride, quinine, and ergot which are believed to produce vasomotor changes. (We shall only consider one or two of these)

4 Focal reflex angiospasm secondary to brain scars and perhaps some cases of hyperactive carotid sinus stimulation

We shall attempt a consideration of only some of these groups in terms of their clinical manifestations

Nervous control of Cerebral Blood Vessels

Careful studies of the blood supply of the human brain cortex and the basal ganglia by Fay (1935), Pfeiffer (1928), and Cobb (1931 and 1932) have shown that there is no evidence for the existence of end-arteries. There exist not only rich anastomoses between proximate arterial units but also short circuits between arteries and veins. Furthermore, the work of Cobb, Talbot, and Craigie has shown that the gray matter has a richer blood vascular supply than the white matter. It is interesting to note in this connection that the metabolic rate of gray brain tissue is correlatively much greater than that of the white substance of the brain. Not only does there obtain this general difference in brain vasculature between the white and gray matter but there is, in addition, an especial regional blood vascular net almost as

specific as is the structure of the part of the brain supplied. There is no doubt that many pathologic syndromes of the brain are dependent upon the parts specific vascular pattern. Pfeiffer has shown, for example, that the globus pallidus is characteristically damaged by poisoning with carbon monoxide, benzol and methyl alcohol. Cobb described differences in the blood capillary supply of the cortex and the lenticular nucleus which may partly account for the focal occurrence of the lesions of carbon monoxide and paralysis agitans.

Putnam has indicated that there are "peculiarities in the capillary supply of the substantia nigra which may explain in part its vulnerability toward epidemic encephalitis." Of course the capillary pattern of the brain area is only one of many factors that may contribute to the function of the part. In addition one must also consider the biochemical and metabolic functions of the brain areas as well. Certainly some parts have more specific affinities than others for toxic substances.

There is now ample evidence that the blood vessels of the brain contain nerves and are therefore under nervous control. Clark (1928), Hassin (1930), Stohr (1932), and Chorobski and Penfield (1932) have demonstrated nerves in the pial vessels, the parenchymal vessels, and the choroid plexus. Not all of these nerves have a sensory function but stimulation of the dural sinuses, the dural arteries and some of the pial vessels give pain. The vessels of the choroid plexus seem to be insensitive to manipulation or cauterization.

Stimulation of the cervical sympathetic fibers causes vasoconstriction of the brain vessels and section of cervical sympathetic fibers result in vasodilatation which may only be of temporary duration.

*Read before the Association for Research in Nervous and Mental Diseases New York City
December 28 1937*

Moreover these vasomotor effects are not equal in all parts of the brain blood supply. Following cervical sympathetic stimulation, the vessels to the cortex are most affected, next those in the pia, next those in the hypothalamus, and finally the medullary vessels, the latter being very little affected (Schmidt 1934).

Furthermore, there is more definite evidence that the brain blood vessels are especially sensitive to chemical stimuli. Ether, carbon dioxide, histamine, acetylcholine, and amyl nitrite cause pial vessel dilatation. Caffeine causes contraction of pial vessels first, followed by dilatation. Hypertonic solutions injected intravenously, or ephedrine locally applied, result in vasoconstriction of the pial vessels.

Experiments by Penfield and Stavraky (1935) have shown that stimulation of the ventral portion of the tuber cinereum or areas in the thalamus lead to dilatation of pial vessels, whereas stimulation of hypothalamic areas (between the third ventricle and the cerebral peduncle) results in pial vasoconstriction. Despite these being isolated experiments, they are of great importance in affording us definite evidences of vasomotor responses in the brain capable of being mediated through stimuli in distant brain areas. The relation of these data to the effects of the emotional tone of the individual is highly suggestive.

Effects of Emotional States on Cerebral Blood Vessels

Sustained emotion is a strain on the cardiovascular system. Emotion results in part in the production of sympathetic stuff (Cannon and Loewi) and also parasympathetic stuff (Bender). The response by the organism must therefore vary (1) with the constitutional endowment of the organism with the various end-organs stimulated by emotion, (2) with the kind of emotion and what it means to the person, and (3) with the specific organ or system effect most prominent. For example, most people under the effects of strong emotion have an increase in the heart rate and the blood pressure. However, we have seen some (fewer by far than the preceding group) who react with a slowing of the heart or a fall in blood pressure. Some individuals

will blush under circumstances wherein others will definitely grow pale. Similar varied vasomotor responses can occur in the brain.

It, therefore, becomes apparent that any study of the situational or emotional factors alone cannot always predict the response of the individual. These reactions are of teleologic and physiologic importance. One person may faint because he is afraid to meet a situation, and fainting is his conditioned reflex involving his cardiovascular system. Another may have syncope because, although he may be willing and ready to meet the situation, his cardiovascular system reacts with sudden lowering of blood pressure due to hypersensitive carotid sinus.

These are but examples of the wisdom of not attempting to explain syncope on either *psychological or biological data alone*. Cannon's idea of homeostasis or the maintenance of biological balance must be broadened to include the psychologic as well as the physiologic. How a man reacts to his environment and what he thinks or does is important because emotional responses are undoubtedly due to cortical as well as to subcortical (conscious or subconscious) forces, and both can affect the cerebral blood supply.

Furthermore, changes in the cerebral blood supply do produce correlated changes in the person's behavior.

Vasomotor phenomena due to emotional states may manifest themselves in many portions of the body. For example, the hysterical hemiplegic has blood flow changes in his paralyzed extremities. In some people the blood supply to the heart, the viscera or the skin may be more affected than the cerebral blood supply. Weiss has shown an increase in the blood supply of the hysterically paralyzed arm. There is reason to feel that the sensory or motor defect of the hysteric may be associated with similar vascular changes in various parts of his brain. This does not preclude psychologic factors as causative of the hysterical reaction, but gives us as well some biologic basis for the reaction.

The importance of doing complete psychologic and biologic studies in patients having syncopal attacks will be illustrated by the following two cases.

CASE 1 An unmarried male, aged twenty-six, came to the clinic complaining of syncopal attacks, especially apt to occur when he attended formal parties. He was a shy person, well-educated, apt to be "perfectionistic" and rather successful in his work. Physical examination revealed a slightly enlarged lymph node over his left carotid sinus. Pressure on it produced syncopal attacks but no convulsions. Wearing a stiff collar irritated this man's carotid sinus because of the pressure by the overlying lymph node—and surgical removal of this old tuberculous node resulted in the patient's immediate cure. He had no recurrences of syncope, although he continues to be shy at parties. Heymanns has reported similar cases.

CASE 2. A married male physician aged thirty-three, told of a syncopal attack one morning while shaving. He was seen during this attack was extremely pale, nauseated and had a heart rate of fifty with a full regular bounding pulse of equal frequency. The temperature was normal as was the blood count and the electrocardiogram taken later that day. Further investigation revealed that this man on arising had noticed that his urine was colored red. He had been under much emotional worry and tension concerning his wife of whom he was extremely fond, and who was ill with chronic cardiac valvular disease. In the course of discussion it came out that the patient visioned himself incapacitated with a kidney tumor or kidney stone (causing his urine to be scarlet colored) and he saw himself incapacitated and unable to help his wife. It was later shown that his red colored urine was not due to blood but caused by the dye of beets which he had eaten the previous night. Syncope on this man was caused by psychologic factors producing physiologic changes in his cardiovascular system and in his brain circulation.

You have all seen the young medical student who faints while attending his first surgical clinic. He soon learns to steel himself to prevent this syncopal response—and sometimes alas overdoes his conditioning and turns surgeon!

Such material illustrates the effect of hypersensitive carotid sinus stimulation and psychologic factors as causative of sudden cardiovascular (and very likely cerebral vascular) changes.

Arterial Hypertension

The syndrome of arterial hypertension offers us evidences of vasomotor control

of cerebral blood vessels. The basic role of vasomotor phenomena in arterial hypertension is indicated by the sudden onset of symptoms like hemiplegia, aphasia, convulsions, blindness or other focal symptoms. Although we are dealing here with a symptom (hypertension) which very likely is of varied etiology, still some observations are proper on the effects of hypertension on the vasomotor control of cerebral blood vessels. The variability and evanescence of cerebral phenomena in hypertensive encephalopathy can be accounted for by focal vascular spasm which is part of a generalized vasoconstriction present in arterial hypertension. There are several ophthalmoscopic observations on record in which blindness in acute hypertensive crises was accompanied by spastic obliteration of retinal arteries. As the vessels became patent again, vision returned. Labodie-Lagrange and Laubry observed a patient with lead poisoning who became blind when the systolic blood pressure reached 250 mm. Amyl nitrate lowered the blood pressure to 170 mm and the patient's vision returned. Furthermore, Haselhorst and Mylius saw spasm of retinal arteries in a case of eclampsia gravidarum. We shall later mention Osler's observation of cerebral vascular symptoms coincidental with evidences of peripheral vasoconstriction in cases of Raynaud's disease.

Many patients with essential hypertension of unknown etiology have sudden onset of hemiplegia, aphasia, convulsions or amaurosis which clear up as suddenly as they arise—and these undoubtedly are caused by focal angiospasm of cerebral vessels.

The group of patients with arteriosclerosis should be mentioned.

One of our cases a young man aged thirty-two with a blood pressure of 120/80 and premature cerebral arteriosclerosis (proven at autopsy) had fourteen attacks of right-sided hemiplegia within a period of eight weeks. He recovered completely from all but the last attack.

Another patient aged eighty-two (seen in consultation with Dr. W. L. Niles) while playing bridge at the Club, suddenly became confused in his speech and quickly developed paralysis of his right face, right arm, and leg. While making arrangements to have him removed to his home, he promptly recovered and seemed perfectly well. These

attacks of speech difficulty and right-sided paralysis recurred for about thirty-six hours, during which period he had twenty-six such episodes. They lasted from about three to forty-five minutes, most of them about twelve minutes. He was not unconscious at any time and during the attacks he was able to articulate but not to speak intelligibly. As he came out of them, he would first be able to speak perfectly and then very quickly be able to move his extremities and face. During the attacks he had definite dorsal flexion of his great toe on the affected side and obliteration of right abdominal reflexes which would disappear immediately upon the return of function. His blood pressure remained about 128/70, his urine was entirely normal and he had no loss of sphincter control. His strength and general health returned to normal within a few days. Since that time there have been no recurrences.

The third of our cases, seen at Bellevue Hospital, a man aged forty, with hypertension, (blood pressure 180/110) had twenty-five attacks of right hemiplegia (with Babinski sign, related hyper-reflexia, aphasia, and absent abdominal reflex) within four hours with complete recovery in the interval periods. This patient improved with simple bed rest and is alive today.

Such cases are pointed clinical evidences of the vasomotor control of cerebral blood vessels. Ricker,³¹ and Riser, Meriel, and Plank³² indicate that vessels with arteriosclerotic plaques are hypersensitive to localized vasomotor stimuli and this may account for the frequent transient evidences of cerebral vasospasm in such patients.

We have had under our care a physician, aged sixty-five, who has had evidences of peripheral arteriosclerosis for many years. Nine months ago he had a sudden onset of paraplegia with loss of all sensation below the tenth thoracic segment. Sensation objectively greatly improved in three hours and was entirely restored in less than twenty-four. Eight months later he had a sudden onset of left homonymous hemianopia with slight flattening of the left lower face and the dreamy mental state with feeling of *depersonalization*, characteristic of a deep temporal lesion. The complete hemianopia in two days became quadrantic, and in four more, was gone. The sense of personal unreality persisted for six days, during which he was also unable to fabricate visual image memories or to arrange his "intellectual" memories sequentially in point of time.

His experience illuminates and analyzes what we call the dreamy mental state characteristic of temporal lobe lesions. This patient had no cardiac lesion nor hypertension. These are clinical evidences of cerebral vasospasm. Some may feel that function returns to the affected part of the brain by adequate collateral circulation. This undoubtedly plays a part but does not rule out the original cause due to vasospasm which may result in thrombosis.

It is common knowledge that vascular accidents occur in the brain in the course of untreated luetic infection. The very fact that many of these episodes are rapid to occur and clear up without treatment is evidence in favor of the possibility of angiospasm being the causative mechanism. Surely, luetic invasion of cerebral blood vessels must at times be an irritation adequate to set up local reflex angiospasm in these vessels.

Furthermore embolism to a peripheral vessel leads to spasm of the vessel. This mechanism undoubtedly obtains in the brain circulation as well.

Carotid Sinus

Any discussion of the clinical evidences for vasomotor control of cerebral blood vessels would be incomplete lacking consideration of the clinical syndromes coming from abnormalities of the carotid sinus function.

The early experimental observations of Pagano (1900), Sollmann (1912), Koch (1923), Heymans, Weiss, and others have shown that impulses arising in the carotid body can effect changes in the heart rate, the blood pressure, and the brain function.

Earlier clinical reports related the effect of simple carotid artery pressure to the impaired cerebral blood flow or vagus heart slowing with resultant syncope. The more recent work would seem to indicate that the effects obtained (syncope, convulsions, and related states of impaired consciousness) were really caused by carotid body stimulation.

Weiss and his coworkers have aptly subdivided the effects of carotid sinus stimulation into three clinical groups. These syndromes we would like to confirm and outline briefly. The most frequent carotid sinus reactions may be described

1 The cerebral type of reaction wherein mechanical stimulation of the carotid sinus results in alteration of consciousness (dizziness, syncope, amnesia, narcolepsy, cataplexy, convulsions) with no preceding slowing of heart rate and no preceding fall in the systemic blood pressure. This response to carotid sinus stimulation is not helped by medication with atropine or adrenalin but is enhanced by digitalis and sodium cyanide. In stubborn cases it may be necessary surgically to denervate the carotid body to prevent the recurrence of this syndrome.

2. The vagal type of reaction where carotid sinus stimulation produces cardiac asystole with resultant cerebral anoxemia with alterations of consciousness. This group of patients are helped by atropine (which abolishes the vagus effect), adrenalin and epinephrin (which raise the systemic blood pressure). The syndrome is accentuated or enhanced by digitalis or acetylbetamethylcholine medication.

3 The depressor type of reaction is the least common and is characterized by fall in blood pressure and cerebral anoxemia with the changes in consciousness common to the other types of response. Such patients are helped by adrenalin and ephedrine but made worse by nitrites because of their respective effect in raising or lowering the systemic blood pressure.

The physician should not fail to look for local abnormalities in the region of the carotid sinus such as inflammatory disease, tumors glands arteriosclerotic vessels or even a high stiff collar pressing on and initiating abnormal impulses from this region. One must prove the hypersensitivity of the carotid body, for it is well known from the work of Weiss and others that such local abnormalities may exist in this region without production of symptoms. Furthermore systemic disease such as syphilis avitaminosis and the menopause are known to contribute to carotid sinus hypersensitivity and suitable therapy should be employed before resorting to surgical denervation of the carotid sinus.

There is some evidence to show that sudden falls in the systemic blood pressure result in a momentary constriction of the pal vessels soon followed by marked dilation (Fog). This mechanism of sudden cerebral anoxemia may explain the vagal and depressor carotid sinus response. Moreover the work of Lennox and Gibbs shows that there is diminution

in the total brain blood flow in these vagal and depressor cases but such changes are smaller than those observed in other patients who exhibit no alteration in consciousness. Their evidence does not give us any information of focal alterations in the circulation of the brain. Focal brain blood flow studies are needed to explain the clinical facts of sudden alterations in consciousness which may well be due to focal brain anoxemia. It is highly suggestive, but not proven, that the carotid sinus impulses cause brain as well as peripheral vasomotor responses.

The cerebral type of carotid sinus reaction has no demonstrable changes in total brain blood flow (Lennox and Gibbs), but here again the suddenness of the response is highly suggestive of a focal vasoconstrictor mechanism at work.

Thus far we have described the effects of the hypersensitive carotid body. Now let us consider the pathophysiology of the hypoactive sinus. In animals, complete denervation of both carotid sinuses results in chronic hypertension. Denervation of these sinuses in man has been done by Bucy who found as a result of this operation temporary tachycardia and hypertension. It has therefore been suggested by some investigators (Page et al) that disease or sclerosis affecting the carotid sinus in man may cause hypertension. Pathologic studies are lacking to prove this hypothesis. The emotional state of the patient has been thought the cause of hypertension by many. But the work of Davis and Ayman and Pratt indicates that personality problems alone are not adequate cause for the production of arterial hypertension since a large control group of patients with obesity and various psychoneurosis exhibited similar personality symptomatology and problems but had normal blood pressure. Furthermore as noted by Weiss the age distribution of hypertensive patients is mostly over forty coincidental with involuntary changes—not in the youthful age group whose nervous systems are most sensitive

Epilepsy

Only a little has been added to our knowledge of the pathogenesis of the clinical epilepsies since the work of Hughlings Jackson. It is true that part

studies of the effects of various electrical or chemical epileptogenous substances have given us further knowledge of chemical and electrical fits. The blood-flow studies of Lennox and Gibbs have indicated that the total cerebral blood-flow of epileptic individuals is probably normal and the electroencephalographic work of Hallowell Davis and Despert have focused our attention on the cortical electrical phenomena that precede and accompany convulsions. But none of these studies has yet been able definitely to rule out the fact that local vasomotor spasm of cerebral blood vessels can or does occur as one cause of generalized convulsions. Of course, there are other causes of convulsions, ischemia of brain cells on a humoral cellular basis, or brain scars may also set up convulsive seizures. One fact remains, *that research workers in this field have not been able entirely to deny the local cerebral vasomotor basis for epilepsy*. Every epileptic during a convulsion has evidences of discharge from the sympathetic and the parasympathetic systems. The resultant clinical picture depends on the relative balance and proportions of the discharging ingredient neurones.

Clinical observations in this regard are therefore important. One of us (K) was able to observe the brain cortex of a patient during a general epileptic fit, the exposure of the parietal cortex had been carried out under local anesthesia whereby consciousness and normal reflex activity were retained up to the moment of the attack. The initial sign of the seizure was a sudden whitening of the cortex which was no sooner noticed than it was replaced by a tremendous venous engorgement with protrusion of the brain beyond the level of the bone defect. This alarming engorgement, in which the previously blanched cortex became beet color and many of its veins swelled to half the diameter of one's small finger, was coincident with the tonic stage of the attack and the period of general clonic convulsion. The cortex failed to recover its normal appearance during the remaining twenty minutes of exposure, though its blood red color was gradually mitigated during that period. The engorgement was apparently a part of the diffused cyanosis consequent on the general tonic spasm,

the initial chalky appearance, however, must have been due to a vascular constriction which was possibly the proper beginning of the cerebral seizure. Foerster reported seeing widespread shrinking of the brain at the onset of a convulsive seizure. However, Penfield states that he has never observed this shrinking, nor a sudden diffuse anemia nor obvious constriction of the pial vessels. He saw a widespread cessation of pulsation of the pial arteries as the initial phenomenon. Venous engorgement and swelling of the brain, Penfield considers to be phenomena secondary to the convulsion. Towards the end of the seizure he often saw remarkable changes in the vascularity of the cerebral cortex, such as focal cerebral areas of anemic blanching, single or multiple constrictions of pial arteries and marked flushing of brain gyri. These pathophysiologic changes are most often reversible and especially apt to be seen in the parts of the brain concerned with the production of the epileptic fit. Moreover it is noteworthy that these sequelae are especially common in the chronic epileptic.

Osler's well-known observation of a patient with Raynaud's disease who had attacks of epilepsy coincidental with the occurrence of the Raynaud's disease—*both symptoms* during the winter months of the year when the patient was exposed to cold—is noteworthy because of the fundamental vasomotor disturbance.²⁴

He described another noteworthy case of the disease who had three attacks of aphasia with hemiplegia from which complete recovery took place, these attacks coincided with the peripheral recurrent evidences of the Raynaud's disease.

Putnam's hypothesis that "a cortical injury of almost any type may be followed by the formation of a new capillary plexus which may acquire an abnormal innervation" seems to us to be a good one, especially for the posttraumatic type of epilepsy.

Quincke considered the reaction of angioneurotic edema to be a vasomotor phenomenon. The rapidity of the onset of symptoms in these allergic states is certainly in keeping with this hypothesis.

Many investigators have felt that if vasospasm is the cause of convulsive seiz-

ures then cervical sympathectomy would stop such attacks. Penfield and others have shown, however, that cervical and dorsal sympathectomy is only helpful in very occasional cases. This evidence would indicate that cerebral vasomotor disturbances in epileptics are not often dependent upon impulses arising outside the cranial cavity. In the chronic epileptics reflex foci must exist in the brain blood vessel plexuses which are capable of easy detonation to produce a fit. The excision of such foci in the posttraumatic epileptic is the most effective method for stopping such noxious stimuli.

The Spectrum of Epilepsy

We claim an identity of type and an inequality of degree in the different epilepsies from the major seizures through petit mal to amnesic fugues to recurrent fainting and emotional storms originating from within and independent of environment. Among these should be included the voluminous mental states of unreality and those terrifying experiences called vasovagal attacks in which the patient is fear-stricken, has a feeling of imminent death, a sense of enlargement of the limbs and losing definite contact with his environment and an acute attack of cardiac hurry. This type of seizure may be a form of sympathetic epilepsy—all convulsions must be associated with an energy discharge over the sympathetic and autonomic systems and indeed include many more components than are indicated by externalized events. Probably the physiology of the great fit can be best understood by examining the minor attacks which are fragments of the fully developed seizure—just as we have fragments of the decerebrate posture produced by imperfect midbrain block. Likewise we may see fragments of the major attacks when the vascular change has not been sufficient to cut out the entire cortex. We should not forget the case of diencephalic automatic epilepsy particularly in a patient with third ventricle tumor who has had sudden onset of restlessness, flushing of the face, a rise in blood pressure, lacrimation, sweating, salivation, dilatation or contraction of the pupils, protrusion of the eyeballs, increase in the pulse rate, retardation of the respiration,

and in some instances, loss of consciousness. These symptoms were evidently the expression of hyperactivity in the hypothalamic sympathetic and parasympathetic system.²⁶

Hughlings Jackson observed and reported spasm of the retinal arteries immediately preceding a convulsive seizure.

Migraine

Vasomotor reactions in the cerebral blood vessels have been thought to cause migraine. The work of Pickering producing histamine headache indicated that such headache probably originated in the dura and was associated with vasodilatation and a fall in the blood pressure.²⁷ The headache characteristically starts when the low blood pressure is returning to normal levels. When the headache is maximal there is great amplitude in the intracranial pulsations. As the pulsations decrease the headache subsides. This headache is not dependent upon the gross spinal fluid pressure. The greater the intracranial pulsations the greater the headache.

This work has been extended by Wolf and Graham (Trans Amer Neur Association 1937) who have shown that headache in migraine is associated with large pulsation in the cranial arteries especially the branches of the external carotid and that ergotamine relieves headache by constricting these vessels. Emotional tension can undoubtedly cause headache but the mechanism for the production of such headache is very likely vasomotor changes in blood vessels in some patients.

Soma Weiss and Wegner have observed spasm of the retinal arteries on the same side as the migrainous headache.

We realize that these are only isolated evidences of vasomotor changes related to headaches and there are very likely other mechanisms that act to produce headaches. Nevertheless these data afford us definite evidences of a vasomotor causative mechanism for this syndrome of migraine.

We have focused your attention on some of the clinical evidences of cerebral vasomotor changes. It should be emphasized that *there is no direct experimental or clinical proof* that sudden angiospasm occurs in the conditions we have described. Nevertheless the evi-

dence by deduction certainly indicates that cerebral angiospasm is one important mechanism producing a variety of clinical manifestations. Certainly some expressions of epilepsy, arterial hypertension,

carotid sinus syncope, migraine, and angioneurotic edema are associated with vasomotor changes in cerebral vessels

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NEW ANESTHESIA METHODS IN CHILDBIRTH

New surgical technics and local anesthetics developed in the last year make it possible now to eliminate almost wholly all pain to the mother both during and after childbirth, it was reported by two authorities to the seventeenth annual congress of anesthesiologists in late October in New York City.

Heretofore, relief from pain could be afforded to a mother by injections of an anesthetic into the spine. This procedure, however, provided only temporary relief and was, at the same time, dangerous because of the risks involving the spinal cord and the brain of the patient, the two doctors explained.

As a result of the new developments, these dangers are entirely avoided, they emphasized in two papers to the Congress. The reporting authorities were Dr S LeRoy Sahler, president of the Eastern Society of Anesthetists and chief of anesthesia at Rochester General Hospital, and Dr Peter Graffagnino, chief of the depart-

ment of gynecology at the Louisiana State University Medical Center.

Dr Sahler and Dr Graffagnino explained that in the new procedure injections of anesthetics were made in the epidural space instead of the spinal cord. Since only nerve trunks are affected in the epidural space, dangers of the spinal cord and the brain are avoided by this technic.

Because of this new procedure and new local anesthetics, a patient may be kept under anesthesia for anywhere from four hours to three days, they added. Heretofore, under spinal anesthesia, the effect of the anesthetic wore off within two hours.

Drs Sahler and Graffagnino explained that a single injection of the new anesthetic was enough to provide relief from pain to a mother throughout the childbirth period. This relief from pain, they added, also curbs the mortality rate from childbirth and assures the co-operation of a fully conscious patient with the surgeon during the operation.

HYPERPARATHYROIDISM

Results Obtained Through Early Diagnosis and Treatment

CLEMENT J. HANDRON, M D, *Troy*

Parathyroid osteosis,¹ as the terms imply, signifies a particular condition in which the osseous and endocrine systems are jointly involved, and in which, as a necessary factor, there is found a marked disturbance of calcium and phosphorus metabolism. The condition has been also called "von Recklinghausen's disease" and "osteitis fibrosa cystica." Neither one nor the other may be properly applied to all cases. Hyperparathyroidism may be found in acute form with sudden death² and may be characterized chiefly by renal symptoms due to calculi. The osteoporotic form,^{3,4} in which the changes are mainly those of generalized decalcification without the presence of cysts or tumors, has been described. In addition, there is a form of hyperparathyroidism which may exist simultaneously with Paget's disease in the same patient. The present case we believe, should be classified under the heading of hyperparathyroidism with early osteoporotic changes.⁵ Neither cysts nor tumors were observed nor had general decalcification progressed to any marked degree. Metastatic calcium deposits were many and widely distributed. Thinning of the cortex in some of the bones and increase in the coarseness of the trabeculae were noted.

The first to identify the relationship between hyperparathyroidism and fibrous cystic disease of the bone was Askanazy in 1904 and the first to operate for the removal of a parathyroid adenoma was Mandl of Vienna,⁶ who performed the operation in 1926. The results were brilliant and a complete cure was effected. Several others duplicated Mandl's feat in various European clinics with the same good results before Barr in 1929 became the first in the United States to remove a parathyroid tumor for relief of parathyroid osteosis. Since that time a number of other cases have been reported the chemistry of the disease has been elucidated and the clinical symptomatology has been thoroughly observed. It is thus, in well matured cases, relatively easy

to make a diagnosis. The same does not hold true in the early case. Particularly is this true in respect to changes in bone. The early case does not give x-ray evidence of diffuse bone destruction or decalcification. There may be no cysts visible.⁷ Irregular thinning of the cortex of the shaft in long bone, coarse trabeculation and mild degree of mottling of the skull bones may be the first, and for a considerable time the only demonstrable x-ray changes in the bones.

If it is possible to single out the disease before advanced bony changes and deformities have taken place much that is of value to the patient has been conserved and the operative risk is better.

Wilder's very comprehensible review of the historical aspects of the disease and the splendid reviews of the literature up to the present by others make any attempt on my part to further clarify these topics wholly unnecessary.⁸ I shall, therefore, confine myself to a brief resume of the symptomatology and diagnosis of parathyroid osteosis, and to a rather detailed description and discussion of the case under consideration.

Symptomatology and Diagnosis

The subjective symptoms of parathyroid osteosis are referable to the osseous system, the gastrointestinal, the cardiovascular the neuromuscular and urogenital systems. There is subjective pain referable to one or more bones.⁹ Gastrointestinal upsets such as pain vomiting and diarrhea are common. Weakness exhaustion and nervousness and irritability are the rule and vague cardiac disturbances are mentioned. The pain of renal colic may in the future be recognized as a more common symptom of hyperparathyroidism. The objective signs include marked tenderness on pressure over affected bones deformities pathologic fractures, and demonstration of beginning or advanced decalcification of bone. Hypotension¹⁰ is the rule. Marked hypotonia is to be noted

A tumor mass in one side of the neck may be felt. The chemical studies of the blood reveal a definite hypercalcemia, hypophosphatemia, and an increase in the phosphatase activity. There is a notable increase in the amount of calcium and phosphorus excreted in the urine.

The criteria for diagnosis have been fairly definitely established¹¹ and in the full-blown cases they offer no grave difficulties. The asthenic individual having a marked hypotonic and hypotension, osteoporotic changes in his bones and hypercalcemia with hypophosphatemia, increase in the phosphatase activity of the plasma, pain and tenderness over one or more bones, and an increase in the amount of calcium and phosphorus excreted, very probably has an adenoma or hyperplasia of one or more of his parathyroids. These criteria quickly justify surgical exploration of the neck,¹² regardless of whether a palpable mass or even a palpable fullness is noted in the region of the thyroid gland.

Case Report

M. W., age twenty-four, white, American graduate nurse, chief complaint was "pain around the heart," was first seen on May 31, 1936. The pain was agonizing and $\frac{1}{4}$ gr of morphine was necessary before any attempt could be made to obtain a history. It was then explained that for several months the patient had experienced extreme lassitude, general muscular weakness, and fleeting pains in the region of the heart. She had made no comments on her indisposition but members of her family had, for several weeks, noticed that she would, at intervals, place her hand over her left breast and sit up straight in her chair. They noted no change in facial expression or color. On questioning, it developed that the intervals between attacks of pain were gradually becoming shorter and the pain itself more severe. There was never any radiation of the pain in any direction, nor was it associated with dyspnea nor giddiness. Position, exertion, excitement, and ingestion of food appeared to have no relation to the onset of pain. It was noted, however, that the attacks were more frequent and more severe in the evening, after a trying day's work in which both physical and mental fatigue were marked. The patient placed second in importance her absolute lack of ambition and energy. When she was relieved of her duties at the end of the day, she did not seem to have energy enough to change her uniform,

and prepare herself for the evening meal. Her appetite was poor, but her weight did not vary greatly from year to year. Her cardiorespiratory history was negative except for the constant fear of heart disease due to the pain in the left side of her chest. The genitourinary history was negative. The menses were established at the age of fourteen, the cycle is regular, the flow moderate, of reasonable duration, and not associated with distress of any kind.

The patient is not the hysterical type. She is affable, does her work well, is not at all irritable, and has no difficulty in adjusting herself to the many trying situations arising in her professional life.

The past history is essentially negative. One point of importance was stressed by the patient, i. e., that while medical attention had been a rare necessity in her life, she was constantly frequenting dental offices, seeming to have endless trouble with her teeth.

Family history is also negative. Father and mother, brother and sister are all living and well. Paternal and maternal grandparents lived to advanced ages.

Physical examination revealed a fairly well-developed and nourished individual who, when seen in a sitting position, presents an evident postural deformity of the spine, the upper portion of her torso appearing to be tilted to the left. Examination of the scalp, hair, and eyegrounds showed no abnormalities. The face was of good color and the skin normally moist. The teeth were poor. Several were missing and those that remained were heavily studded with silver fillings. The two upper central incisors showed many dark areas in the enamel. The throat presented no pathologic findings. On the right side of the neck, near the apex of the anterior triangle, slightly below the angle of the mandible there was palpated a small, hard, movable nodule, neither attached to nor incorporated within the skin. It was not tender and gave evidence of none of the signs of inflammation. The remainder of the neck was negative.

The chest was asymmetrical, the right half bulging with widened intercostal spaces and the left half narrowed and apparently compressed. Expansion was greater on the right. Hyperresonance was found on the right side, anteriorly and posteriorly. The percussion note on the left was of impaired resonance. No areas of dullness nor flatness were found. Auscultation brought out the presence of emphysematous changes on the right side of the chest. On the left, the breath sounds were indistinct and both inspiratory and expiratory excursions were short. Posteriorly there was noted a very marked dorsolumbar scoliosis. The spinous

processes of the vertebrae could be easily palpated. There was no tenderness elicited on pressure extension, flexation or rotation of the spine. There appeared to be no irritability of the spinal nerve roots.

Examination of the ribs disclosed marked tenderness on pressure of the seventh rib on the left side. The tenderness was noted as extending from the angle of the rib anteriorly to the costochondral junction. The ribs on the right side were normal.

The heart was entirely negative to palpation, percussion and auscultation. It was apparently normal in size but displaced somewhat to the right. The abdomen was negative likewise the rectal examination.

In general, the extremities were negative. There appeared to be some loss of tone in all the muscle groups of both upper and lower extremities. The neuromuscular examination and the general neurological examination were negative.

The special laboratory procedures indicated were done and the results are here tabulated and interpreted.

Röntgenographic Studies

X ray studies were made of the chest, kidneys and the bony skeleton. The positive findings included (1) multiple areas of calcification in the costal cartilages, (2) multiple areas of calcium deposition in the tendons and ligaments of the knee joints, (3) shallow excavations in the inner table of the skull and (4) scoliosis of the dorsal vertebrae without bone destruction.

Basal metabolism. A basal metabolism test taken on June 2 gave a reading of -2%.

Blood chemistry. Chemical examination of the blood and blood serum provided the following data: Sugar, 115 Mg., N P N., 25 Mg. creatinine, 1.5 Mg. per 100 c.c. blood, calcium, 13.8 Mg. and phosphorus, 2.8 Mg. per 100 c.c. blood serum. Phosphatase, 4.8 Bodansky units per 100 ml. blood serum. **Blood count.** r.b.c. 4,950,000 w.b.c. 8,700 and Hb. eighty-eight per cent. **Differential.** Polys. seventy three per cent, lymphs twenty five per cent, basophils one per cent, eosins one per cent, platelets 265,000.

Urine studies. Twenty four hour specimen (voided). Amount 1800 c.c. color yellow reaction, acid Sp gr 1.010 albumin and sugar negative.

P.S.P. Test

1st hour 225 c.c. 26% Plithalein excretion
2nd hour 150 c.c. 35% " "

Total 61% " "

Fixation-Concentration test. Specific gravity of day specimens ranged between 1.010 and 1.020, night specimen 1.008.

Analysis of these findings together with the clinical observations made during the physical examination led to the conclusion that we were dealing with a case of hypercalcemia due to a hyperparathyroidism.

In the light of these findings, it was deemed advisable that surgical exploration of the neck be undertaken. On June 8, Dr W. T. Diver explored the neck under ether anesthesia, using the ordinary thyroidectomy incision. As the deep fascia of the neck was incised the right lobe of the thyroid was extruded. It appeared to be considerably enlarged although there had been no visible nor palpable fullness over the thyroid area when the physical examination was made. The right lobe was carefully dissected free from all surrounding structures. Nothing giving the appearance of a parathyroid gland was seen. The left lobe was similarly treated. The nodule which had been palpable in the right side of the neck on physical examination was nowhere to be found. The entire antrolateral aspects of the neck were carefully explored without result. The capsule of the right lobe was then incised on the posterior surface from the medial and lateral margin. As it was stripped away from the gland there came with it and firmly attached to it a small firm glandular mass about the general size and shape of a kidney bean. This mass appeared to be enclosed in a sheath an outgrowth of the thyroid capsule. It had a small but easily visible artery entering the margin. The mass together with a considerable piece of the thyroid capsule and some surrounding thyroid tissue was ligated and excised. The cut edges of the capsule were drawn together and sutured. The neck was closed in the usual manner.

Grossly the tissue removed appeared quite like ordinary normal thyroid tissue distinguishing marks being its hardness and its very particular blood supply.

The microscopic examination of the specimen and the report on the same was made by Dr. John Clemmer of the Department of Pathology. His summary of the findings are as follows:

Gross. The specimens submitted for examination were four in number. They are described under numerical headings according to their following positions in the gross photograph (Fig. 1).

- No. I opposite 2 cm. mark
- No. II " 4 "
- No. III " 6 "
- No. IV large specimen

I. An elongated ovoid mass of soft, yellowish-pink tissue, measuring $1.5 \times .8 \times .6$ cm. About half the surface is covered with a capsule. Cut surface shows yellowish-pink, soft tissue which yields a sticky exudate. This specimen resembles thyroid.

II. An ovoid mass measuring $1.2 \times .8 \times .3$ cm. The specimen is divided longitudinally into two parts. Cut sections show a small grayish yellow round nodule 0.4 cm. in diameter. Surrounding tissue resembles thyroid.

III A flattened globoid mass measuring seven cm. in diameter and 4 cm. in thickness. External surface is smooth, light yellow in color and cut sections show light yellow, granular tissue which yields a sticky exudate.

IV This large mass measures 5 x 4 x 18 cm. About half of it is covered by a capsule. The remainder is rough, pinkish-yellow, and granular. The capsule surface shows a small papillomatous elevation which has been tied with suture material. It measures 1 x 1.3 cm. at the base and extends one cm. above the surface. A loboid nodule protrudes from its base 0.2 cm. distant from the suture material. It measures

tremely nervous, disturbed by even the slightest sound, such as the scraping of a chair on the floor above. These symptoms were effectively controlled by the administration of a few doses of calcium gluconate. From the third postoperative day until her discharge from the hospital on the seventeenth day, she made an uneventful recovery.

During this time the following blood chemical study was made

Day of operation (June 10) Blood taken immediately upon completion of operation showed

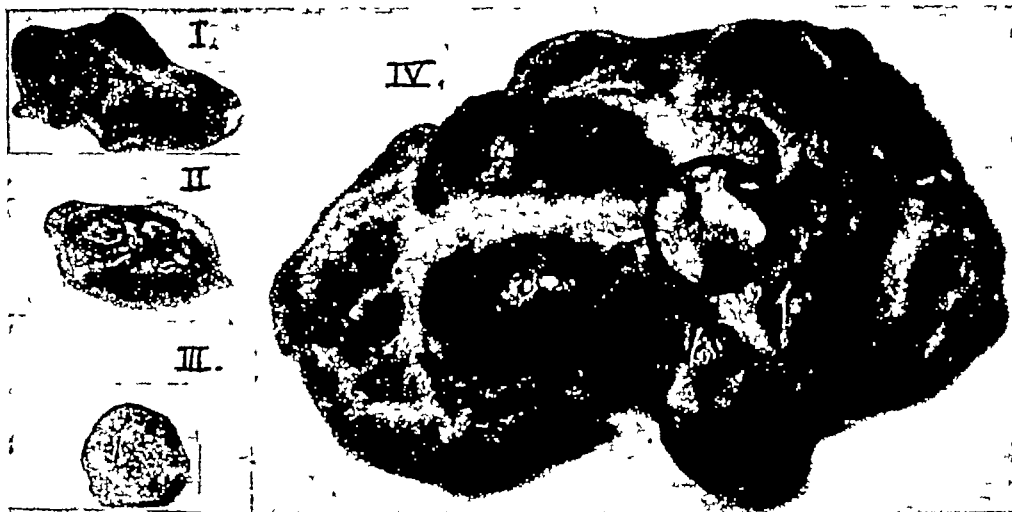


Fig 1

1.1 cm. in diameter. Cut surface resembles parathyroid tissue.

Microscopic Examination

I This tissue is composed of scarred thyroid tissue showing dilated acini filled with colloid. There are foci of fibrosis with lymphocytic infiltration present. II and III Similar to I.

IV Secretions made from papillomatous mass on the large segment of thyroid capsule show a small parathyroid adenoma. It is composed chiefly of a dense mass of cells with dark staining nuclei, closely packed and having a very indistinct cytoplasm and cell membrane. A very few cells with eosinophilic stippling are present. This mass is separated from the thyroid tissue by a wide zone of dense, hyalinized fibrous tissue.

Diagnosis Parathyroid Adenoma. Colloid Adenomata of Thyroid.

The patient came to operation on June 10. She reacted normally from the anesthetic and for the next thirty-six hours gave evidence of some of the milder symptoms of tetany. She displayed a positive Chvostek sign and all of her tendon reflexes were hyperactive. She complained of numbness and tingling in her extremities and was ex-

calcium, 12.2, and phosphorus, 4.3 Mg per 100 ml. serum, phosphatase, 4.1 Bodansky units per 100 ml. serum.

June 21 Calcium, 11.9 Mg per 100 ml. serum.

June 27 Calcium, 11.3 Mg per 100 c.c. serum.

July 14 Calcium, 10 Mg per 100 c.c. serum.

The following clinical changes were noted on physical examination done on the thirty-fifth postoperative day.

There was a gain of fourteen lbs. in weight over the weight recorded on the day of her admission to the hospital.

There was an absence of subjective pain and of tenderness on pressure over the bones. The blood pressure had risen to 118/70 as compared to 98/60 on the day of admission. Muscle tone was good and the patient remarked upon the increase of appetite and the absence of easy fatigability and was anxious to return to her duties. The physical findings were essentially those of a normal individual.

Comment

The reason for reporting this case is twofold. (1) It was observed early in

its clinical course and no time was lost in making the diagnosis. Because of this fact, we believe that the bony changes had not reached the stage of even beginning cystic degeneration, (2) we believe

it to be one of the few cases¹⁸ in which the parathyroid gland was found imbedded in the thyroid and adherent to the visceral surface of the thyroid capsule

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BRONX HEALTH EXHIBITS TO CONTINUE UNTIL JUNE

A series of health exhibits at 349 East 140 Street the Bronx opened on September 15. Two State departments, four city departments and eight social welfare and health organizations are cooperating with the Department of Health to put over the program for the education of the public.

The movement, inaugurated by Dr Jerome Meyer, health officer of the center will continue for several months, every two weeks marking a new exhibit.

The opening exhibit was devoted to "Diphtheria."

The New York Heart Association sponsored the second exhibit, which opened on September 30, continued to October 14. The other exhibits and their sponsors are:

"Diabetes," by the New York Diabetes Association, October 14-28, "Occupational Diseases" Bureau of Industrial Hygiene New York State Department of Labor, October 28 to November 14, "Food and Drugs" New York City Department of Health, November 14 to November 28, "Tuberculosis" Bronx Tuberculosis and Health Association and New York Department of Health and New York City Health Department, December 16 to December 30.

"Health Exhibit," Bronx County Medical Society, December 30 to January 13, "Safety in the Home and in the Street," National Safety Council and New York City Police Department, January 13-27, "Syphilis," American Social Hygiene Association and New York City Health Department, January 27 to February 10, Dental, Association for the Improvement of the Condition of the Poor, February 10 to 24, "Nutrition," Association for the Improvement of the Condition of the Poor, February 24 to March 13, "Laboratory Work," by the Bureau of Laboratories, New York City Department of Health, March 13-27, "Hospitals," New York City Department of Health, March 27 to April 10, "The Eye," by Better Vision Institute, April 10-24, "Sanitation," the New York City Departments of Health and Sanitation, April 24 to May 8, "Work of the Mott Haven Health Center," The Center and the Neighborhood Health Development Committee, May 8-26, "Recreation," Department of Parks, May 26 to June 9 and "Visiting Nurse Service," the Henry St. Visiting Nurse Association, June 9 to 23.

Each of the exhibits is open to the public daily except Sunday from 9 A.M. to 5 P.M. and on Saturdays until noon. Literature and pamphlets pertinent to the current subjects are free.

COURSE ON INTERNAL MEDICINE

A course on internal medicine has been arranged by Dr. A. F. R. Andresen of the Department of Medicine, Long Island College for the Rockland County Medical Society to be held at the Summit Park Sanatorium in Pomona, beginning at 3:30 P.M.

Nov. 18, "Some problems in cardiac diagnosis," Dr. J. Hamilton Crawford, F.A.C.P., Professor of Clinical Medicine.

Nov. 25, "Practical Considerations of Blood Dyscrasias," Dr. Eugene R. Marzullo, F.A.C.P., Asst. Clinical Professor of Medicine.

Dec. 2, "Recent Advances in Therapeutics," Dr. George H. Roberts, F.A.C.P., Asst. Professor of Pharmacology.

Dec. 9, "Dietary Therapy in Gastrointestinal Disease," Dr. A. F. R. Andresen, F.A.C.P., Clinical Professor of Medicine.

The National Gastroenterological Association announces that it has taken an office together with its official publication the *Review of Gastroenterology* at 1819 Broadway, New York City, where it will maintain its National headquarters.

CHILDHOOD PNEUMONIA

Complications and Mortality

CHARLES J LESLIE, M D, *New York City*

From the Department of Pediatrics of the New York Post-Graduate Medical School and Hospital of Columbia University

Pneumonia in childhood is a subject of considerable interest because of the frequency of the disease and because it is still one of the greatest causes of death in the younger age groups

Recognition of certain specific factors which influence the mortality is necessary for the development of more successful methods of treatment

The mortality rate of pneumonia in children is influenced by several factors other than the primary disease itself In addition to the type of pneumonia, one must consider also the virulence of the infecting organism, the age of the patient, and the presence of congenital or acquired defects The presence of common complications such as otitis media, mastoiditis, empyema, and acidosis is of very considerable importance

Consideration of these points may explain some of the marked discrepancies in mortality rates reported in the literature Table I graphically illustrates the variability in death rates as given by different authors

The present paper is based on observations of 511 consecutive cases admitted to the Babies Wards of the New York Post-Graduate Hospital over the five year period 1930-1934 These cases were classified as lobar and bronchopneumonia and studied with reference to age groups and complications

It must be admitted that the classification into lobar and bronchial types is frequently difficult Even with the help of the x-ray, the diagnosis is often not entirely conclusive (Griffith, Ellenberg and Martin)

TABLE I

Author	Number of Cases	Death Rate
Morgan ¹	205	50%
Garrod et al ²	Not stated	70-90
Morrill ³	205	43
Chapin & Royster ⁴	Not stated	25-50
Morse ⁵	" "	25-33
Pfaundler & Schlossman ⁶	" "	3-5
Holt & McIntosh ⁷	346	42
Pisek & Pease ⁸	1 000	34.3
Ellenberg & Martin ⁹	459	8.6

On the basis of clinical and roentgen data we were able to classify 173 cases as of the lobar type, while the remaining 338 cases were termed bronchopneumonia

Death rates of total series The mortality rate for the entire series, including all ages and types, was twenty-five per cent This coincides closely with the figures given by Morse⁵ (25-33%) It is interesting to note that it is definitely lower than that of the series of Pisek and Pease⁸ from this service in 1916 (34.3%) As will be shown later, this improvement in our own figures cannot be explained entirely on the basis of therapy, but rests as well on other factors which at present are obscure

Mortality of lobar and bronchopneumonia There was considerable difference in the death rates in the two types of infections The rate for all ages in lobar pneumonia was fourteen per cent, while that of the other group was forty per cent

Our mortality in lobar pneumonia was higher than that reported by other observers, e g

	Cases	%
Ellenberg and Martin ⁹	459	8.6
Grulee and Mulherin ¹⁰	116	7.0
Morgan	398	9.3
Manace ¹¹		9.7
Moody ¹²		9.6

It is, however, lower than that reported by Pisek and Pease from our service, who found a rate of 28.1 per cent for 227 cases When corrected for complicated cases, the rate of our present series very closely approximates the general average

In the bronchopneumonia group, the present rate of forty per cent is identical with that of Pisek and Pease⁸

Influence of age on mortality The age of the patient played a great part in the outcome of pneumonic infections The usual trend was followed, in that the youngest patients had the highest mortality

In our total series, the age groups were divided as follows, with the corresponding death rates

	Cases	Deaths %
0-6 mos.	82	65
6-12 "	88	48
1-2 yrs	136	19.8
2-5 "	117	6.8
5 years and over	88	2.2

These may be compared to those of Holt and McIntosh,¹ and Pisek and Pease.²

Year	Holt and McIntosh Cases	Holt and McIntosh Death rate	Pisek and Pease Cases	Pisek and Pease Death rate
First	202	66 %	226	52 %
Second	102	55	155	29
Third	33	33	33	24.2
Fourth	6	16	13	0.0
Fifth	3	0.0	13	0.0
Sixth			5	0.0

The influence of age is equally striking both in lobar and bronchopneumonia

	Lobar pneumonia Cases	Lobar pneumonia Mortality	Bronchopneumonia Cases	Bronchopneumonia Mortality
0-6 mos.	8	87%	74	63 %
6-12 "	10	60	78	39
1-2 yrs.	48	18	88	20
2-5 "	59	3	58	10
5 years and over	48	2	40	2.5

Frequency of Complications and their Effect on Clinical course Complications of pneumonia are frequent and varied and their occurrence often determines the outcome of the disease. All too frequently the coexistence of some condition which ordinarily would be of little importance will swing the course of pneumonia to a fatal termination

We observed one or more complicating conditions in 355 (69.4%) of our 511 cases. They were noted more frequently among the bronchopneumonias (73%) than among the lobar type (61%). Their occurrence may well have influenced the outcome, for we noted the following differences in mortality

Type	Uncomplicated	Complicated
Lobar pneumonia	10%	16%
Bronchopneumonia	16%	35%

The occurrence of complications roughly corresponds to an increased mortality, most strikingly in the cases of bronchopneumonia

Chief types of Complications and their Relative Importance As one would ex-

pect, acute ear infections were the most frequent complication. Otitis media, either alone or accompanied by lesions elsewhere, was present in 165 cases. The simple ear infection by itself apparently was benign, as the mortality of cases so afflicted in both the lobar and the bronchial types was lower than for the entire series. When associated with other complications the result was much more often fatal (Bronchopneumonia 56%, lobar pneumonia 35%). It is difficult in such cases to evaluate the importance of the ear infection alone among a number of variable factors

Operative mastoiditis occurred in forty-four of 511 cases. Of these the majority (28) accompanied bronchopneumonia. Only five of these forty-four died, a fair rate when the poor operative risk is considered. We noted a greater danger in the complications of the bronchopneumonia type, four out of the five deaths being in this group

Empyema occurred in fifty-two cases out of the entire series. It was found almost twice as frequently in lobar pneumonia (34) as in the bronchopneumonia (18). The mortality rate was just the reverse—in the lobar pneumonia seventeen per cent and fifty-five per cent in the bronchopneumonia. The findings here are in accord with general experience, the empyema of bronchopneumonia being generally a virulent condition of streptococcal or influenzal origin while that of lobar pneumonia was of the more benign pneumococcus type

The most fatal of all complications was dehydration acidosis. This occurred in forty-two cases with thirty deaths (72%). Here again the serious complication occurred in the cases of bronchopneumonia more frequently than in the other group—thirty-seven cases with twenty-eight deaths (76%). These cases were undoubtedly the most intractable with which we had to deal and invariably presented a poor prognosis in spite of all forms of treatment

Congenital and acquired Lesions unrelated to Pneumonia These were children often classified as a "handicapped" group. They presented such diverse lesions as congenital heart defects, Mongolism, cleft palate, congenital syphilis, severe rickets, scurvy, tuberculosis, asthma, etc. These

children are generally expected to die of pneumonia or similar disease. The infection is frequently terminal in such patients, but not invariably so.

We encountered eighty-eight such cases in our series, of whom thirty-nine died (45%). Age was a potent factor in these deaths, as is shown by the following figures:

Age	Death Rate
0-6 mos	70%
6-12 "	54%
1-2 yrs	27%
Over 5 years	0%

Discussion

The preceding analysis shows that the younger the patient, the more fatal is the pneumonic infection, regardless of complications. It also shows that complicating lesions play a definite part in the outcome of the disease, although different lesions vary in their respective importance.

With regard to the treatment of uncomplicated pneumonia, we are strongly of the opinion that one of the greatest sources of danger is overtreatment. Probably the most important single thing for the pneumonic patient is rest. Too much handling and medication do nothing but exhaust him. If cough be troublesome, a simple expectorant either with or without codeine is indicated. Liquor ammoniae anisatis, glycerine, and water is a suitable mixture. Phenobarbital may be used to quiet restlessness. Ample fluid intake is important in all cases.

Oxygen is indicated if cyanosis be present. The method of choice is the tent. Nasal catheters are annoying and cause much local irritation. Oxygen therapy should be continued as long as cyanosis persists. It is useful as well in very toxic cases with extreme dyspnea even though cyanosis be mild or absent. Here it spares the patient much exertion and promotes rest.

Transfusion is frequently of distinct value. We have generally reserved its use until about the tenth day in lobar pneumonias, but it may be used earlier if severe anemia occurs. It is definitely indicated if a spread of the pneumonic process occurs, or if resolution is slow. In bronchopneumonia it is often necessary to transfuse several times in the course of a

protracted case. We have the impression that in either type, the small repeated transfusions are superior to one large one.

We have not had experience with the use of specific serum. *A priori*, certain objections might be raised:

1. Pneumococcus types in children are not generally those for which there are potent sera.

2. The technical difficulty of injecting large quantities of serum into small fragile veins at short intervals presents a very real objection to its use.

3. Pneumococcus serum could hardly be expected to reduce the incidence of the streptococcal lesions (otitis and mastoiditis) which form the most dangerous complications.

Further investigation of its value is needed before serum therapy can be recommended for routine use in children.

Among the complications of pneumonia, simple otitis media itself is rarely dangerous, although it commonly occurs. When combined with other lesions it is an added burden which may overwhelm the patient. It is of particular importance when there is associated diarrhea or dehydration. These conditions may be maintained or aggravated by otitis media. We feel that in such cases the drum should be incised promptly, even though the inflammation may appear mild.

Mastoiditis is an important lesion particularly as it is prone to cause diarrhea and dehydration. The decision to operate on a given case of mastoiditis is frequently difficult. However, when diarrhea and dehydration are present and the weight curve is going down, it is essential to open the mastoids. Delay in operating may well result in a fatality. The simple antrotomy in young infants is easily done and is attended by practically no shock. Local anesthesia is very satisfactory. In older children we have had good results with the use of basal avertin supplemented by local novocain. The inhalant anesthetics are used as little as possible in the presence of active or subsiding pneumonia.

In making the decision to operate it is important to remember that the ear drum may not be very abnormal in appearance, and that the patient may have little or no fever. The important criteria are poor tissue turgor and a falling weight curve.

It is essential to combat dehydration

acidosis at all times by means of appropriate fluid administration. This is particularly necessary before and after any surgical procedure. Saline and glucose or lactate solution should be given as often as necessary to maintain proper tissue turgor. Intravenous injection is the route of choice, where veins are poor, subcutaneous or intraperitoneal saline may be used.

Frequent small transfusions are indicated, either of whole or citrated blood. We feel that repeated transfusions of

sixty to eighty-five c.c. every two or three days are preferable to larger amounts at longer intervals. The citrate method is favored in this regard as suitable small amounts of blood may be added to saline infusions.

It is to be hoped that the above measures, perhaps combined with a more effective serum therapy, will help to diminish the mortality of one of the commonest diseases of childhood.

POST GRADUATE MEDICAL SCHOOL AND HOSP

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MASSENGILL FINED \$16 800

Samuel Evans Massengill drew a record fine of \$16,800 after he pleaded guilty to charges growing out of seventy deaths blamed on an elixir of sulfanilamide, at Greenville, Tenn., on October 3.

Federal Judge George C. Taylor imposed the penalty after Massingill, a drug manufacturer of Bristol, Tenn., entered a plea of guilty on 112 of the 166 counts charging violation of the Pure Foods and Drug Act.

The fine represented a \$150 penalty on each of the 112 counts and District Attorney James B. Frazier said it was the largest ever imposed under the food and drug law.

Massengill was ordered to pay one third immediately with the balance to be paid within thirty days. Judge Taylor dismissed the remaining fifty four counts but Mr. Frazier said sixty two similar counts were pending in the Federal district court at Kansas City.

Mr. Frazier said the principal charge was "adulteration and misbranding" of an elixir of sulfanilamide manufactured and distributed by the Massengill Manufacturing Company.

The government contended that this medicine was a contributing factor in the deaths of more than seventy persons last Fall.

SULFANILAMIDE IN MENINGITIS

The lives of fifty five to eighty of every 100 sufferers from meningitis caused by a streptococcus are now saved by the addition of sulfanilamide to the standard surgical treatment of this disease, which as late as three years ago killed nearly all its victims, it was reported on October 18 before the annual clinical congress of the American College of Surgeons at the Hotel Waldorf Astoria in New York City.

The report was presented as part of a symposium on the surgery of the ear, nose and throat by Dr. Carl H. McCaskey of the Surgical Department of Indiana Uni-

versity School of Medicine. The results of the treatment were characterized by Dr. McCaskey as "almost unbelievable."

A million youths playing football in our high schools and colleges throughout the country are in danger of injuries that will affect them all their lives unless competent medical care is made available on grid irons according to Dr. Frederic A. Besley of Waukegan, Ill., retiring president of the American College of Surgeons.

THE FUTURE OF THE HOSPITALS

E H L CORWIN, PH D, *New York City*

Executive Secretary, Committee on Public Health Relations of The New York Academy of Medicine

No prediction is ever valid. As a matter of fact, even in the world of observable and measurable things, validity is but a relative concept. Heracitus, the renowned philosopher of ancient Greece, questioned the very possibility of stable knowledge or stable ethics. The phenomena of the outer world, the sensations of our inner world, and we ourselves, as individuals, are undergoing constant change. "Panta rei," everything is in a state of flux, maintained the ancient philosopher. "All is changing save the law of change." In a world conceived as one of eternal flux, no stability is possible. If that was applicable to the Greece of several centuries B C, what shall we say of our own world, in which changes occur with so startling and ever-accelerating rapidity, that we can no more differentiate between evolution and revolution, between fact and fancy, between right and wrong? What today is still in the realm of dream becomes the applied science of tomorrow, what was cherished tradition but yesterday will be looked upon as sentimental gibberish the day after tomorrow, what has been held sacred for centuries becomes ludicrous over night. Who, under such conditions, would undertake to cast a horoscope?

No prediction is ever valid. It is always a guess, and the wiser the guesser, the more observant he be of the fickle nature of man, the more experienced he be in the ways and vagaries of life, the more he be dominated by a love for wisdom rather than a desire to define the ever elusive truth, the more sensitive his intuitive perception of incomprehensible things—the nearer may his guess fit the pattern he endeavors to trace on the nebulous web of the future. There have been few such men—occasionally a great

philosopher, a great moral teacher or a great statesman looms up on the horizon of time endowed with this rare gift of sensing the trends of the future.

In the domain in which we are professionally concerned, the future does not seem to be enwrapped in a thick veil. For one thing, the hospital as a social institution is certain to survive, it is by the nature of things one of the most stable bulwarks of our civilization. No one, conservative or liberal, fascist or communist, authoritarian or democrat, wants to abolish it. Even the most radical proposals which have been advanced of late for the enlargement of the availability of medical service to all, do not compare in revolutionary scope or tenor with the measures advocated in other domains of our common life. Hence the forecasts in this field can't lead one far astray, and that is why I have dared, with the meager equipment I possess, to undertake the task in order to stimulate discussion of current trends in the hospital field.

What I have to say must needs be sketchy, with no elaboration of the opinions expressed. Otherwise, I would be presenting a whole treatise. The material available, factual material, is enormous and lends itself to many and various interpretations. What I present here is purely a personal opinion, and not that of any organization with which I may be associated. In other words, I am speaking for no one but myself.

It is but commonplace to say that the pattern and the mode of operation of the hospitals of the future will be molded by the changes which will take place in the social and economic organization of society, by the progress which medicine and surgery may make, and by the human relationships which will be developed as a result of political evolution. One thing appears reasonably certain—that as long as mankind continues to

Reproduced by permission from *Hospitals*, the Journal of the American Hospital Association, November 1938

Read at the meeting of the American Hospital Association, Dallas, Texas, September 26, 1938

maintain a civilized state, the existence of hospitals is assured. I have already ventured the opinion that of all existing institutions of our present social order, the hospital occupies the most stable and impregnable position.

There is also no doubt that the continuance of the present crisis—which, in a large measure is due to political unrest and to our coming of age—may lead to as profound ultimate socio-economic changes as those which followed the Thirty Years' War, the Industrial Revolution in England, or the French Revolution. Personally, however, I believe that what Professor Demashkevich calls the Apollonian attribute of the national mind will predominate over what he calls its Dionysian characteristic, and that the forces which are being mustered to cause a volcanic eruption may become dissipated and the present crisis pass over as merely one of a series in a rather turbulent economic cycle. It is interesting to observe how often throughout the course of history the results of a social uplift become disappointing to those who endeavor to direct the engendered emotional forces into channels which they believe beneficial to society as a whole, or to certain economic groups. Life has its own laws and eludes artificial patterns laid out for it. The present crisis, however, has probably gone far enough to bring about some definite changes in economic concepts and values which will modify to a degree the existing social relationships. The welfare legislation of the past few years will no doubt become a permanent fixture of our socio-economic life, although it will, in time undergo many changes and modifications. I doubt however that it will lead to profound improvements in the life of the masses. It has not done so in Europe. Abundant and satisfying life has deeper roots and is sustained by more substantial nutriment than legislative fiat.

The future of our hospitals will be affected to a considerable degree by the economic and social welfare legislation of the present time, and by the large sums of money which are being and will continue to be expended for public health purposes and as direct subsidies for the construction of new hospitals and the enlargement of existing institutions.

The expansion of public health work with its present emphasis on venereal diseases, tuberculosis, pneumonia and chronic afflictions—for which no effective preventive measures exist such as cardiac and arteriovascular diseases neurological diseases, nutritional diseases cancer, and mental aberrations—will cause a redistribution in the existing ratios of various types of hospital beds. In its modern aspects, public health activity is often indistinguishable from medical care. It is steering away from its original environmental moorings and it is pushing with ever accelerating vigor into the field of hospital and clinic service.

The line of demarcation between preventive and curative medicine is often hard to discern and as I have stated the encroachments of the field of public health on the domain of the care of the sick have been considerable and may become even more pronounced in the future unless steps are taken in the current stage of evolution to secure a proper balance between the two overlapping concerns. The need for working out a satisfactory policy of distribution of responsibility I had occasion to discuss in an address presented a few months ago under the title "Reorientation in the Public Health and Hospital Organization Patterns of our Communal Life" and which will be published in the *NEW YORK STATE JOURNAL OF MEDICINE* for October 15. I suggest that this subject of interpenetration be made a matter of special joint study on the part of the American Hospital Association and the American Public Health Association.

In the light of the difficult economic problems of survival which the hospitals face today, the governmental subsidies for capital investment in hospitals raise the question of maintenance of the added hospital units. There is little likelihood that the existing plus the projected future hospital facilities whether rural or urban whether for chronic or acute conditions would be supported adequately by tax funds. Government maintenance of hospitals in accordance with merely adequate not optimum standards would require a considerable addition to existing local and state taxation. Aside from the un wisdom of increasing our tax burdens the extension of political control

which full or partial public maintenance of hospitals would entail, is likely to cause a slump in the efficiency which we are accustomed to expect in the care of the sick. My prediction is that the tradition which has been established for the high standards of hospital work, though very young, will prevail if every effort is made to continue the independent economic basis of voluntary hospitals, which have always been pacesetters in the evolution of high standards.

It is my belief that as in the past, so in the future, the major support of voluntary hospitals will continue to come from private sources, although these sources will, in the future, be derived principally from mutual associations created for meeting the contingencies of illness, and to a diminishing degree from charitable benevolence, donations or endowments.

All indications point to the budgeting of sickness needs of people of moderate means as the established order of the future, just as the buying of automobiles on installment is the prevailing practice among this group today. The great majority will seek insurance indemnity for their illness costs from the proceeds of insurance premiums.

A great deal of trial and error will go on before the most satisfactory way has been devised for adequate social financing of medical and hospital care of sickness in all its protean manifestations. The greatest difficulties that will be encountered will be the time element of chronic illness and the working out of an actuarial basis for sickness insurance rates. Some of our commonwealths may be rash enough to try out compulsory state insurance schemes, most will leave the matter to voluntary civic experimentation. My prediction is that eventually a way, or ways, will be found for meeting this important need in the life of everyone through the principle of organized mutuality, without political coercion or bureaucratic interference. There will, no doubt, always be a small proportion of the population which, through misfortune or improvidence or the shortcomings of mind or body, is unable to cope with the social and economic aspects of illness, and the community

I foresee the continuance of tax-maintained medicine in this country, except in public health work. The latter has been operated on the principle of public support from its very inception. It could not have been developed otherwise.

Just as in the fields of government, industry, agriculture, business, architecture, and education, the national genius of this country has evolved original patterns of its own, so it will, without doubt, evolve its own future modes of organization for the care of the sick. I do not believe that the forms it has taken in other countries, with an entirely different social and political background, will fit our needs or our psychology. I predict that the type of medical organization which our hospitals of the future will evolve, under the universal, or almost universal mutual insurance system against the contingencies of illness, will take forms unknown in other countries. One of the distinguishing features of this future organization will be close medical teamwork, well-remunerated by insurance indemnity and under the supervision of highly qualified specialists, which will redound to the benefit of all classes and types of patients, and which will, incidentally, do away with those temporary excrescences and deviations from proper medical procedure and from proper ethical behavior, of which we have heard so much of late.

If the insurance principle of meeting sickness costs becomes as universal as I predict, remuneration of physicians for the care of the sick will be derived from the proceeds of insurance premiums, while those serving in municipal and county hospitals will be paid salaries, as is the practice at the present time in state or federal hospitals. The payment of physicians for their hospital and clinic work will not be free from certain clearly discernible disadvantages, and the physicians of the future will not find it an unmixed blessing.

With the growth of general budgeting for illness will come a considerable curtailment of outpatient work in private hospitals. The clinic practice will concentrate in tax-maintained institutions. These outpatients of tax-supported institutions will also be centers of medical

care for indigents I visualize a large scale organization of home care of the poor to relieve the pressure on the municipal and county hospitals and its close association with the administration of public ambulances—terrestrial and aerial, with social work and with public assistance.

I like to believe also that in the interests of public health as well as of efficiency and economy of treatment, the country will be studded with suburban preventoria and convalescent homes, maintained by both insurance associations and public authorities.

I foresee that with the general adoption of the principle of insurance, the control of voluntary hospitals will pass from the hands of trustees into those of the insurance associations. With the shift in ownership of voluntary hospitals will come many changes of organization, and among these will be changes in the present mode of selection of hospital administrators. There will be a standardization of requirements as to experience and professional training. The type of people who will constitute the American Hospital Association a hundred years hence will be quite different from what it is today. There will be fewer colorful personalities, less interesting talk, fewer viewpoints and more discussion of routine procedures.

The hospitals of the future will be linked to each other more closely than they have been in the past. They will constitute cells, so to speak, in the large beehive of hospital activity. Such close integration will result in economies, and may perhaps be more conducive than the present independent status to the undertaking of research problems on a large scale. It may however prove detrimental to the free play of scientific spirit, that indefinable gift of the gods which withers in certain atmospheres.

In other words I foresee a little more regimentation than I like to visualize for institutions so vital as hospitals. By the same token I can foresee the elimination of waste, the wise distribution of hospital facilities, the full utilization of existing resources and the more effective enforcement of discipline. I visualize with particular satisfaction the possibility of collecting from a well integrated string

of hospitals complete pathometric data of value not only to medicine and administrative management, but also to social biology and social ecology, to vital statistics and insurance.

I can visualize the disappearance of competitive economic or financial practices, the passing of which no one will regret, and also the possible diminution of competition or emulation in scientific achievement which may tend to level off toward mediocrity.

The planning and construction of hospitals in the future will differ radically from what they have been in the blighted era of congestion of city populations. I foresee that with the impetus with which city planning will proceed in the future, the skyscraper hospital will yield its place to smaller and less compact units. I visualize large civilian hospitals in the future only in connection with university or other recognized formal teaching centers.

In the course of this brief paper I have mentioned only some phases of possible future evolution of hospitals, and have left out many others. I have listed only those which appear to me as the more significant ones and I have not hesitated to express my own views as to the desirability or undesirability of certain modern trends and tendencies, with a view of arousing you to a discussion as to which of the existing values are worth preserving and as to the ways and means by which the preservation of these values could be secured. I for one have no fear of the future. I believe in the ultimate predominance of rationality in the human race in spite of the only too numerous past and present relapses of mass behavior from the line of rational procedure. The trajectory of human development has ever been a jagged one, and it is reasonably safe to predict that it will never be smooth but it behooves those of us who are interested in the future to prevent its present course from too groggy deviations from reason. There is too much at stake to let the future be of no concern to its present trustees, and no momentary advantage or temporary easement should be allowed to distort the age-long course and fine traditions of our hospital world.

BENZEDRINE SULFATE AND CIGARETTES

Effect on Skin Surface Temperature

GAMLIEL SALAND, M D, *New York City*

In October 1936, Myerson described the effects of benzedrine on the autonomic nervous system¹ At that time the studies were begun on three postencephalitic Parkinsonian cases to determine if they could be roused from their lethargy by the use of this drug I shall not report on these effects, as I was mainly interested in the effect on the peripheral vascular system Having obtained a marked effect on this system in these patients, who did not have peripheral vascular disease, I was curious to see the effect of this drug on four cases of arteriosclerosis I found the results to be almost the same as in the Parkinsonian group, namely, a rise in blood pressure, a slowing of the pulse, and a drop in the skin surface temperature

I now had definite proof that when a potent drug is given—one causing vasoconstriction—there is also a definite drop in skin surface temperature, regardless of the condition of the peripheral vessels

I therefore proceeded to test these same patients to cigarette smoking and observe the effect on skin surface temperature In addition to the above seven cases which were tested with benzedrine and cigarettes, I tested nine other cases for cigarette smoking only—four of thromboangitis obliterans and five normal healthy adults

Method of procedure I followed the technic of Maddock and his coworkers² The extremities were exposed for a half hour to room temperature, and thermocouple readings were taken for the next half hour with the Taylor Dermatherm

In the case of benzedrine, the blood pressure and pulse readings were also taken before the administration of the

drug The drug was then given at the end of one hour exposure to room temperature, and blood pressure, pulse, and temperature readings were taken subsequently at half hour periods The temperature readings were taken bilaterally on the dorsum of the big toe near the base of the nail

In the cigarette tests, the patient was given two standard brand cigarettes to smoke at the end of one hour exposure to room temperature Thermocouple readings were taken every five minutes for forty to sixty minutes, bilaterally, (1) on the dorsum of both big toes near the nail, (2) on the dorsum of the middle fingers near the nail, and (3) at the malar regions of the face Rectal temperatures were taken before and after the test The room temperatures were constant during most of the experiments, and only occasionally fluctuated 1° C

The patients were instructed to smoke in their usual manner, and to inhale if they were natural inhalers In other words, I did not attempt to produce any abnormal symptomatic effects from excessive deep inhalation of tobacco smoke, such as nausea, dizziness, and palpitation I conducted these experiments to conform with the usual method of smoking by that particular patient, in an attempt to see the effect of cigarette smoking under normal conditions

Three cases of postencephalitic Parkinsonian disease were given sixty to eighty Mg of benzedrine sulfate The systolic blood pressure rose in all three cases, the pulse slowed in two, and the skin surface temperature showed a definite drop in all three, although the room temperature remained constant

Four cases of general arteriosclerosis were given twenty to fifty Mg of benzedrine sulfate The blood pressure rose in all four cases, the pulse slowed in three, and the skin surface temperature dropped in three There was no relation between the quantitative rise of systolic pressure to the quantitative drop in skin surface

These studies were carried out in part at the Hebrew Home for Chronic Invalids, with the assistance of Dr Jeanette Sackheim and Dr Samuel M Gurvitch The rest of the work was done in the Peripheral Vascular department of the Bronx Hospital

temperature in any of the seven cases just mentioned.

The three Parkinsonian cases were then tested to cigarette smoking, and skin surface temperature readings were taken. The tremors in two cases did not permit finger readings. In the big toe bilaterally, two showed a drop, and the third showed a rise in temperature. The one case with finger readings showed a rise in temperature. In the cheek there was a uniform rise except for one case that showed a unilateral drop. In other words, the skin surface temperature showed no consistent effect such as was obtained with benzedrine. It showed no effect from which one could draw any conclusions.

When the four cases of general arteriosclerosis were tested to cigarette smoking, no consistent effect on the skin surface temperature was found. There was no relation between the quantity of cigarettes smoked daily and the effect on the skin surface temperature. The amount of peripheral vascular involvement was also no factor, for in the case of M, who smoked twenty cigarettes daily, mitted and showed marked rubor and pallor, the skin surface temperature rose in the fingers and toes. W, who had had a mid-thigh amputation, and an absent dorsalis pedis and posterior tibial pulsations, showed a rise in temperature in the toe of the remaining extremity.

There were five cases as normal controls for cigarette testing. They were cases with no demonstrable evidences of peripheral vascular disease. There were three males and two females. Three out of five showed a drop in temperature in both toes, one showed a rise in both toes, and the other showed a rise in one toe and a drop in the other toe. The fingers showed a drop in four on the right, and three on the left. The cheek showed rises in two on the right side but all five cases showed a rise in the left cheek.

In the case of these "normals" there was no definite consistency of the effect of cigarette smoking on skin surface temperature. Neither was there any relation between the amount of smoking, and the effect obtained in the test. One case (I G), who showed a drop in temperature in the toes and fingers was a jejunal ulcer, a patient who was subject to

marked vasomotor reactions to any stimulus.

Four cases of thromboangitis obliterans were also tested to cigarette smoking. The ages varied from twenty-seven to forty-three. A S had an infection of one big toe, and B B had gangrene of the left third and fourth toes. The other two cases had no trophic disturbances, but H M had had an attack of coronary thrombosis about six months prior to the test. This attack was proven by electrocardiographic records taken at the Mount Sinai hospital.

The two severe cases with infection and gangrene showed no drop in the temperature of the extremities, but rather a rise, whereas the other two cases tended toward a drop in temperature of the extremities.

It is evident, therefore, that even in these cases of thromboangitis obliterans, there was no consistency in the effect of cigarette smoking on the skin surface temperature. These cases, in particular, have been considered sensitive to cigarette smoking, and the effect has been attributed to a drop in skin surface temperature. There may be a relation between cigarette smoking and thromboangitis obliterans but whatever it is it is not a drop in skin surface temperature *per se*. Clinical improvement has been reported in thromboangitis obliterans following cessation of smoking but one must remember that other methods of treatment had been instituted at the same time, such as intravenous medication, postural exercises, thermal baths and occasionally bed rest. When a patient digresses from the course of treatment resumes smoking, and finally returns to the clinic unimproved or even worse one must be careful in evaluating the smoking factor.

Summary

Seven cases comprising three Parkinsonian and four arteriosclerotics were given benzedrine sulfate, causing a rise in systolic blood pressure in all cases, a slowing of the pulse in five cases, and a drop in skin surface temperature in six.

Skin surface temperature readings were taken following the smoking of cigarettes in sixteen cases—three Parkinsonian, four arteriosclerotics, four throm-

boangitis obliterans, and five normal cases. In no group of these cases, was there any consistent effect produced on the skin surface temperature.

Comment

A drug capable of causing peripheral vasoconstriction, causes a drop in skin surface temperature almost consistently.

Benzedrine sulfate is such a drug. Cigarette smoking does not produce this result consistently, and cannot be classed in the vasoconstrictor category.

1188 GRAND CONCOURSE

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CHRONIC TETANY WITH CHARACTERISTIC ROENTGEN-RAY FINDINGS

WILLIAM B. RAWLS, M.D., F.A.C.P., *New York City*

The literature contains numerous articles on the relationship between gastrointestinal disturbances and hypoparathyroidism, but only a few discuss Roentgen-ray studies. Pendergrass and Comroe¹ recently reported a case of chronic idiopathic tetany with characteristic Roentgen-ray findings and reviewed the literature. The following case is reported because it confirms the findings of these authors and because of our conviction that this disease is often incorrectly diagnosed.

R. B., Italian female, age thirty-six, married eleven years, no children, was first seen May 6, 1936. Family history and past history unimportant. Chief complaints were diarrhea, nervousness, and fatigue. The diarrhea began two years previously, during a severe illness of her father. At first there were three to four bowel movements each day but they gradually became more frequent until there were from ten to twenty movements daily, accompanied by severe abdominal cramps, tenesmus, and considerable mucus, but no blood. There was occasional nausea, but no vomiting and the appetite was poor. There seemed to be no relation to the food intake. The fatigue and drowsiness gradually increased until there was almost complete exhaustion after slight exertion. There was slight dyspnea, but no edema of the feet or ankles. The patient was extremely nervous with anxious facies and sunken eyes and had great difficulty in sleeping. The weight had dropped from 115 to 100 pounds during the previous two years. Low residue, diet, colonic irrigations, medicated enemas, medication by mouth, etc., had been given for colitis.

The patient was underweight and asthenic. The head, neck, and throat were normal.

The heart and lungs were negative. The blood pressure was 105/70. The pulse rate was eighty, with regular rhythm and good volume. The liver and spleen were normal. There was slight tenderness on palpation over the cecum and sigmoid flexure of the colon. The extremities were normal. The reflexes were somewhat hyperactive throughout. Trousseau and Chvostek signs were positive.

Laboratory findings. Serum calcium 6.8 Mg per 100 c.c. Blood phosphorus 2.8 Mg per 100 c.c. The feces contained a marked amount of fatty acid crystals but no fat globules. Basal metabolic rate was plus eleven. The congo red test was normal, indicating the absence of amyloidosis.

Roentgen-ray examination. The duodenum showed considerable dilatation throughout, and the jejunum resembled many short lengths of sausages, with moderate dilatation and many fluid levels when the patient was standing (Fig. 1). The barium remained in the jejunum longer than usual. At 1½ hours it was still on the left side of the abdomen. At two hours most of the barium was on the right side. At 4½ hours almost all the barium was in the lower ileum, and at seven hours the distribution was not materially changed. Ordinarily at seven hours the small intestine is empty, and the right side of the colon is filled. In this patient the barium had apparently just reached the cecum by this time. The distribution at twenty-four hours was normal. Barium was scattered throughout the colon in fine and coarse spots, indicating that the physical conditions in the colon produced an abnormal mixture of barium and colonic contents (Fig. 2). The same spotting was seen in the residue from the barium meal as it shone through the enema suspension. Enema films showed that the patient had a

very large sigmoid and an incompetent ileocecal valve. The appendix could not be seen clearly, there was no regional tenderness. A film after evacuation showed no ptosis of the flexures or the cecum. Much barium passed into the ileum. The expulsive function of the colon was good. Dr Ramsay Spillman who made the Roentgen-ray examination, called attention to the similarity of the upper intestinal findings in this case with those described by Pendergrass and Comroe¹ in a case of chronic idiopathic tetany.

Calcium balance studies were not done. Calcium gluconate gr XL by mouth t.i.d. was begun on May 18. On May 25, she reported having only four or five bowel movements daily and a marked lessening of fatigue. The weight had increased three pounds and she felt better than for six



Fig 1

months. On June 8, she reported that there had been no diarrhea since the previous visit and had gained a total of 55 pounds. The patient was referred to her family physician for further treatment. There was apparently some relapse and he instituted intravenous calcium chloride therapy in addition to calcium by mouth. Following this she again improved and became symptom free.

She remained under the care of her family physician and was not seen again until March 24 1937. She had remained symptom-free while taking calcium but felt so well that she omitted the medication. Two weeks later she began to have three or four stools daily. On resuming the calcium however the symptoms again disappeared. There was a total gain of ten pounds in weight. There was less fatigue and nervousness and

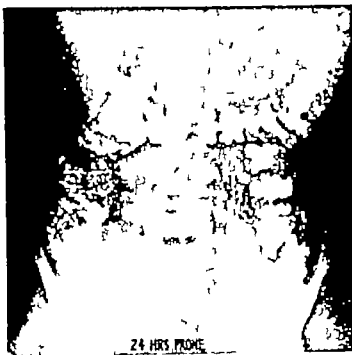


Fig 2

the abdominal cramps had ceased. The general physical condition was markedly improved. Trousseau and Chvostek signs were still weakly positive. There was no abdominal soreness. The laboratory findings were as follows: Blood sugar 95.2 Mg per 100 c.c. urea N 89 Mg per 100 c.c. calcium 80 and inorganic phosphorus 2.36 Mg per 100 c.c. of blood. Icterus index 4.4. Phosphatase activity 356 Bodanzky units. Congo red test: Four minutes 8.5 per cent, one hour, 7.2 per cent. This is not an appreciable retention and eliminates the diagnosis of amyloidosis. Roentgen ray examination revealed the distal duodenum changed but little in appearance since the previous examination and the most proximal loops of the jejunum still were somewhat dilated but when these films were compared with



Fig 3

those of May 11, 1936, the jejunum just past the most proximal loops looked more nearly normal than previously (Fig 3) These findings suggested that the small intestine was returning to normal from distal to proximal

Discussion

In the case reported by Pendergrass and Comroe¹ there was some reduction in the dilatation of the small intestine after the administration of calcium There was also some retention of the congo red in their case but, in view of the fact that there was improvement following calcium therapy, they believed that the condition was due to chronic tetany and not to amyloidosis There was no retention of the congo red in the case reported in this paper, thus eliminating the diagnosis of amyloidosis

One of the outstanding changes occurring in tetany is hyperexcitability of the nervous system Higgins² has observed at operation obliterative spasms of the small intestine The removal of calcium from the system produces an increased muscular irritability and one would expect to find a spastic intestinal tract rather than the type described in this paper These findings, however, may be due to a spasm of certain sphincter regions with dilatation of the loops above and proximal to the region of the constriction Sheldon et al³ have suggested that the large colon found in megacolon may be the result of

contracture of the sphincter regions with dilatation of sections proximal to this

The marked improvement occurring after calcium medication in our case would tend to support the theory that the symptoms were due to tetany but no underlying or predisposing factor could be found

The long history and varied treatments received are suggestive of the difficulty encountered in the treatment of these patients This suggests the importance of serum calcium determinations on all patients with chronic diarrhea Two other patients with chronic tetany and periodic attacks of diarrhea have been observed, but the Roentgen-ray findings were not characteristic

Conclusions

1 A case of chronic tetany of unknown origin with unusual Roentgen-ray findings of the intestinal tract is reported

2 The Roentgen-ray findings were marked dilatation of the duodenum and small intestine with marked stasis and abnormal mixing of barium and intestinal contents in the colon

3 Large doses of calcium are required for improvement

115 E 61 St

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ANESTHESIA COST CUT NINETY PER CENT

A new "absorption technic" that makes it possible to keep a patient asleep during an operation by giving him the same anesthetic over and over again was described on October 17 before 300 delegates from all parts of this country and fourteen foreign nations at the seventeenth annual Congress of Anesthetists in New York City by Dr Geoffrey Kaye This "rebreathing process" has reduced the cost of using this type of anesthetic from about \$5 an hour to 47 cents, it was explained

The "absorption technic" makes it possible to give anesthesia to any one who needs it, regardless of cost, Dr Kaye added Its development promises to be the greatest single achievement of the present-day science of anesthesia study, he asserted

The new process depends for its efficacy upon the apparatus that squeezes all carbon dioxide out of the gas The patient on the operating table breathes and re-breathes the anesthetic in a circle, but the carbon dioxide that he expels is eliminated from the gas by a soda lime mixture before the gas reaches him again

A Berlin cable reports that the Nazi Commissioner of Medical Journalism has ruled that German medical journals no longer may accept articles by Jewish physicians The order added that "our German doctors will subscribe to foreign journals only if they are published by Aryan publishers and edited by Aryan doctors"

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EDITORIALS

Proposal or Command?

I S Falk and other members and agents of the Federal Social Security Board insist that the program submitted to the National Health Conference was merely a "recommendation" for further study and discussion and not a basis for early legislative action. Nevertheless, various officials and protagonists of the Administration are busy trying to sell this program to the public without analysis of possible flaws or study of other schemes.

The picture of the National Health Conference as a forum for free and open discussion is more than a little misleading. No plan but the Government's was presented and there were no opportunities for critical analysis or discussion of that

While certain features of the program submitted were commendable and won the approval of all present, others were too controversial—and still others too nebulous—for immediate acceptance. It is hard, for example, to agree to the appropriation of vast sums of tax money for a ten year plan that has not yet been formulated except in the most general terms. Such procedure appears to set more store by the act of planning than by the merits of a given plan. As E H Lewinski Corwin, Executive Secretary of the Committee on Public Health Re-

lations of The New York Academy of Medicine, recently wrote in this journal "Planning is most desirable as a mental discipline, catastrophic when it becomes a fetish.

The medical situation in this country is not sufficiently urgent to warrant the ramming through of a half-baked Federal program which would completely alter the complexion of American medical practice and destroy its most desirable features. The existing system is flexible enough to provide for the gross medical needs of the population while improved methods of distribution are being worked out. Certainly compulsory sickness insurance has nowhere yielded results justifying abandonment of the American system, which maintains the highest medical standards in the world.

Open Door

A resolution approved by the American Hospital Association at its Dallas session opens the door to more extensive cooperation between the hospitals and physicians of the country in the establishment of group payment plans for medical care. What distinguishes this resolution from other proffers of cooperation in the past, is the acknowledgment of certain specific principles, endorsed by

organized medicine, as essential to the maintenance of proper standards under periodic payment schemes

Among these principles the resolution stresses free choice of physician and hospital, equitable payment to both, the determination of the nature and extent of benefits by both, and the maintenance of separate finances and reserves for hospital care and medical service. It also calls for sound financial and accounting practices and dignified promotion and administrative methods.

With agreement upon these principles, it should be possible to formulate a group hospitalization plan which would not only provide for the needs of a far larger class than present schemes, but offer more complete benefits. The phenomenal growth of hospital service plans all over the country in the past few years refutes I. S. Falk's recent deprecatory remarks on the value of voluntary insurance efforts. If these plans can be expanded to include a larger section of the low income population and provide medical care as well as hospitalization, they will provide for much the same class for which bureaucratic compulsory schemes are now urged.

There is no excuse for political control of medical service as long as private enterprise shows itself able and willing to cope with public needs. The voluntary hospitals and private practitioners of the country are bringing hospitalization and adequate medical care within the reach of ever-increasing sections of the working population. Until they exhaust their efforts, governmental medical services should be limited to the control of communicable diseases, mass sanitation, prophylaxis and education, and the provision of adequate facilities for the care of the indigent and medically indigent, wherever possible by their own doctors.

Abuse of Bromide Medication

From reports in the literature, there appears to be a decided upward trend in

the incidence of psychogenic disorders. In the treatment of these, the bromides figure prominently, not only in the hands of the physician but in the numerous proprietary remedies sold for nervous disorders. The drug is either prescribed or taken independently by the patient more or less as a matter of routine, with little thought of the possibility of bromide intoxication. The incidence of cumulative toxic effects of the bromides is about one out of five.¹

The aspects of bromide intoxication are not widely realized or recognized. The symptoms vary in extent and severity but disorientation, incoordination, acne, and furred tongue are usually present. Maniacal and delirious states have been recorded and, if additional bromide is administered to control these, there will be a vicious cycle established.

The toxic effects are the result of a disturbed relation in the chloride content of the blood. In order to maintain a balance between the chloride and bromide in the blood, about four times as much of the former must be taken daily. Blood bromide values of more than 100 Mg per 100 c.c. should be regarded as indicative of early toxicity.² These are readily determined by quantitative tests of the blood serum.¹ More widespread use of the quantitative tests for bromides in patients who are taking this form of medication will result in a more rational use of bromide therapy and a better understanding of its abuse. Where bromism has become manifest, it should be treated by high chloride intake.

Antivivisection Disguises Itself

A renewed effort is being made by the antivivisectionists to hamper the medical profession in its researches for the benefit of mankind. In the past, they have openly proposed legislation, the purpose of which was clearly evident. Now, however, they have disguised their ultimate

¹ Johnson, G. L. *Ala. State Med. Ass'n Jour.*, 105, 1938.
² Kamman, G. R. *Missn. Med.* 21:484, 1938.

aim by proposing to the voters of California a "Humane Dog-Pound Law" "The euphonious phraseology of the proposed law and the high sounding appeals for its passage on the sentimental plea, 'Protect Man's Best Friend, the Dog!' (backed as the efforts are by a goodly number of newspapers, movie stars and other factors in publicity) have already led many voters to acquire an improper understanding of the purport and scope of the proposed act."¹ Innocently worded to make it appear at first glance as a measure dealing only with the kindly care of dogs, its enactment would be virtually fatal to the progress of medical science in the state of California.

The defeat of this bill is imperative, since the success of such tactics would result in an extension of these efforts in other states. The contribution of animals to the health of humans has been immeasurable. Ivy² lists many of them. The dog has contributed to our better understanding of scarlet fever, hydrophobia, and hookworm. The horse furnishes our antiserums, from the cow comes our smallpox vaccine. Even the lowly rat has clarified vitamin therapy. To attribute to animal experimentation any other motives but those associated with the highest types of humanity is to overlook the marked benefits which humans have derived from it.

The October 24th issue of *Life* has, more than anything else, vividly portrayed to the public its debt to animals in the prevention and cure of disease and the increase in the span of life. More of this is needed to unmask the misguided sentimentality of antivivisectionists masquerading as humanitarians.

CURRENT COMMENT

"IN THE FIRST PLACE, the gathering in Washington was no conference at all—at least in the generally accepted meaning of that term. To give it an atmosphere of fairness, a small group of physicians repre-

sented the American Medical Association was invited. They were quite overwhelmed by the mass of hostile propaganda—and for all practical purposes, they might better have stayed at home. Conspicuous by their absence were representatives of banking, investment activities and of industry and manufacturing, who might have been interested in the financing of the vast expenditures involved. Neither were there any economists or educators who had ever been guilty of entertaining any theories which might be called conservative or reactionary.

It was rather ironical to hear their (the lay speakers) outspoken criticism of the failure of government agencies to look after this group (the indigent) properly when governmental control was supposed to be the objective of their arguments.

"A jibe or sally at the unfortunate doctor was greeted with a round of applause. On the other hand, a calm statement showing what the physician or medical societies had already done and were trying to do to improve medical care received scant attention or was greeted with silence."—Dr W F Braasch's "Impressions Gained from the Recent National Health Conference in Washington" quoted in part, from the September 1938 *Minnesota Medicine*

"THERE IS LITTLE DOUBT that many scientists and perhaps chemists especially, apply their genius to working out destructive schemes in times of peace as well as war, and specialized knowledge is used for the abuse of inventions and discoveries for purposes of destruction. The terrorizing of innocent civilian populations is the avowed object of some governments and the aid of science is called in to accomplish this end.

—An unfortunate truth stated in the October 19 issue of *Medical Record*

"IN THE COUNTRIES WHICH I VISITED there was evident everywhere a trend towards establishing the doctor as a kind of civil servant, if not always on a salary, then usually under some form of contract in which the State holds a controlling interest. From the point of view of the patients the systems which I saw operate in Europe all seemed totally inadequate. In order to live, the doctors had to see so many patients that the resulting care was inadequate at least according to American standards"—Resumé, in part of a paper delivered before the St. Louis County Medical Society, and quoted in part in the October 21 issue of their bulletin.

IN THE FIELD OF REGULAR medical

¹ *Cal. and West. Med.*, 49:250, 1938.
² *Ivy A. C.* 184: 49:237 1938

practice the sick have received attention whether they could pay or not. The hospitals with their payrolls for lay help have unquestionably constituted a drain on the sick who desired to pay, which could be eased by direct and proper governmental financial aid without resorting to a complete disorganization of medical practice and the institution of socialistic enterprises.

"Again we challenge the sociologists to efface the nostrum menace first before working on the field of regular medicine now doing such a good job"—The gauntlet is flung down by a recent article in *Weekly Roster and Medical Digest*

"WHAT MEDICINE NEEDS TODAY—whether we like the idea or not—is keen, competent, vigilant public relations counsel. It needs a receptor mechanism for sending public temper, shrewd generalship in directing that temper, and an ability to dramatize its objectives in terms of the public needs it is attempting to serve."—*Medical Eco-*

nomics tells us what we need, and they may be right.

"UNLESS SOME ALTOGETHER extraordinary developments should arise, we cannot reasonably expect the average length of life to go on improving indefinitely. The rate of any further advance must almost inevitably slacken as we approach an optimum obtainable under present health and living conditions. That we have not reached this optimum should be obvious when we consider that all the advantages of modern medical science are not yet as widely available as they can be made with proper organization. No doubt medical knowledge will continue to advance, and application will always lag a little behind discovery. It is the task of workers in public health to make the lag as short as possible and to make medical and public health practice as up to date and as nearly in unison with scientific knowledge as possible."—From the *Statistical Bulletin* issued by the Metropolitan Life Insurance Company

THE MYSTERY OF SULFANILAMIDE

How sulfanilamide acts in combating diseases of bacterial origin is still a mystery, the New York Academy of Medicine was told recently by Professor E. K. Marshall, Jr., of Johns Hopkins University School of Medicine.

While several drugs related to sulfanilamide have been found to be more effective in animal experimentation, Dr. Marshall said these new compounds should not be used extensively unless they "have been tested clinically under carefully controlled conditions and proved to have advantages over sulfanilamide."

"With sulfanilamide," Professor Marshall declared, "we have just begun to know its dangers and contraindications, and despite the fact that one may find on animals that some other compound is much less toxic, it will be almost certain that one will find when it comes to the patient that this

compound will exhibit toxicity which cannot be predicted by animal experimentation."

"The balance of evidence at present indicates that sulfanilamide affects the invading organism in the sense of producing a bacteriostatic or bactericidal action which in many cases is not sufficient to effect sterilization without the cooperation of the defensive reaction of the host."

"It is probable that under different conditions of infection and with different concentrations of the drug available the relative role played by these two factors varies."

"Be that as it may, we have as yet no idea of how sulfanilamide acts upon bacteria."

Dr. Reuben Ottenberg, Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, discussed the clinical aspects

IGNORANCE IS UNANIMOUS

"Those of you who know what the national debt is, please raise your hands," recently said a university professor to his class.

No response.

"Those who know the national income, raise your hands."

Again, no response.

"Is it possible that this class—future leaders of the country—can't answer these simple questions," the professor fretted.

Silence.

"Well," added the professor, "neither can I."—*The New York Sun*

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address, which will be omitted on publication if desired. Anonymous letters will be disregarded.]

Bee Sting Therapy

25 Central Park West,
New York City

To the Editor

I have read with great interest the publication of Dr Edith E Nicholls entitled "Rheumatoid Arthritis—Treatment with the Sting of the Honey Bee (N Y STATE JOURNAL OF MEDICINE, 38 1218, 1938). There she states, having made observations on twenty seven cases, that "bee sting therapy has no constant or noteworthy effect in the treatment of rheumatoid arthritis." You called once more the attention of the readers of this journal to this paper in an editorial "Bee sting therapy" (Oct. 15 1938).

As a physician who has used extensively bee venom for the treatment of rheumatoid arthritis and other rheumatic diseases for the last ten years, I feel compelled to make some critical remarks which seem to me quite important.

Firstly it is doubtless quite difficult to make definite scientific statements regarding so delicate a matter as the therapy of arthritis, after examination of a relatively small number of cases. It should be imperative to observe at least one hundred cases before drawing any definite conclusions.

Secondly, it is a matter of fact that we cannot control properly the dosage of bee venom by using living bees. It is not enough to increase the number of stings since the potency of the venom varies among bees not to mention the dependency of the quality of bee venom upon the different seasons. We will fail, as long as we do not apply the venom in different concentrations, as we do it by the use of injectable forms of bee venom, slowly increasing the

doses according to the individual sensitivity and form of reaction.

Finally, the most important point seems to me that the article of Dr Nicholls and your editorial are likely to create wide spread confusion among the physicians. Dr Nicholls has not emphasized the fact that her findings with natural bee stings are in obvious contrast to the reports of many investigators who have treated a sufficient number of cases with sufficient care and discrimination with bee venom injections, (e.g. Apicosan) and have achieved very satisfactory results. The latest report in this country (*Ann Int Med* January 1938) came from the same clinic from which the report here criticized came and among the authors was also Dr Nicholls. In the summary of this report we stated "In estimating the results obtained from this study of an injectable form of bee venom (Apicosan) for rheumatoid arthritis one is impressed with the definite improvement in the clinical symptoms and the significant drop in the corrected sedimentation index in a large percentage of the patients. It would seem, therefore, that bee venom is worthy of further consideration."

In conclusion the publication of Dr Nicholls does not (and probably will not) say anything against the value of bee venom itself if properly used in the modern form and in indicated cases. Those modern forms were created because it was felt that the use of natural bee stings is obsolete and annoying and does not meet the demands of modern science. It is even more it is not without danger since the sting of a bee like the bite of a snake, can in certain cases be fatal.

Very truly yours

JACQUES KRONER, M.D.

October 20 1938

"Better teaching of the fundamentals of preventive medicine" was described as a "great and urgent need" by Dr Allen W. Freeman, of Baltimore, at a conference on rural medicine at Cooperstown on October 7.

In an address before the conference at Mary Imogene Bassett Hospital, Dr Freeman professor of public health administration in the School of Public Health and Hygiene at the Johns Hopkins University,

said "For a child to grow up in the world as it is today without a vivid and accurate concept of microscopic causes of disease without knowledge of what prevention means and how it is brought about, is unexcusable, almost criminal."

"For a physician to be graduated and licensed to practice medicine without a full knowledge of preventive medicine is, for lack of a better word unspeakable."

Nursing News

The Future of Nursing in the Community

By NANCY WOODS WALBURN

Last month the New York State Nurses Association underwent a brand new experiment Adopting the country grange idea, it went on tour It set up shop—their term was regional institutes—in no less than three widely separated communities for three day sessions The first was at Kingston (October 13-15), the next was at Utica (October 18-20, and the third at Elmira (October 24-26)

To get out to the membership on this new regional plan adopted at its last convention, the board and executive staff members as well as fellow members from nearby parts of the state, rode the cars, the trains, and the buses, sending the call ahead to the leaders of the nursing profession in each locality to invite in the best of their local people (including the Mayor) to relate their community health problems and to participate in the discussions of those problems For the objective of the three event attack on the community problems from a nursing angle was not to carry coals to Newcastle or to offer "cure-all" advice from outsiders It was to throw the spotlight on the community health picture and the place that nursing in all its specialized fields occupied in that locality

To emphasize this local focus, the visitors from the Albany headquarters office, whether board or executive staff members, occupied comparatively few places on the program When they spoke, if at all, it was rather to set the local picture within the national or state interpretation to determine if it were typical of what other communities were doing Unspoken but clearly felt, the undercurrent at all three events might well be summed up as follows "Not to lead but to confer one and all alike for mutual benefit from the community picture."

Incidentally, it is significant to note that the skeleton set up for each event's theme was the same, leaving the variation to the participation of lay and professional local leaders To take a typical session chosen at random, look in at the opening morning ses-

sion at Kingston (October 14) All over the room were lay people both men and women, not alone in the audience but on the platform, there to tell what they looked for in a nurse individually or for service to the community as a whole.

When she defined community nursing as a socialized service to the community with a definite place for the nurse in the health picture, one speaker struck the keynote of the Institutes Her's was a plea for an organized plan of joint community service with all other health agencies as well as nursing services "Private duty nurses too long have worked independently in a highly individualistic way without supervision as far as any professional registry or agency is concerned All too often there has been no coordination of her work with any centralized bureau in the community"

And it was another far sighted leader in nursing circles who said "We of the nursing profession will retain the right of leadership only as long as we recognize and meet changes and demands from the community Otherwise other groups will make the decisions and relegate to us their conception of our place in the community's health picture"

Medical group insurance, federal and state projects, and nursing on the community wide basis on a unified program with other health agencies, were repeatedly cited as influencing the future of nursing Years ago there were but two major sources of employment and income for the graduate nurse, it was pointed out. One of these was the hospital and the other the private patient. Now taxes, funds from community chests, insurance, clinics of a public or endowed nature in the rapidly increasing field or prevention as well as health and family welfare agencies and other organizations, offer employment for the specialized and highly trained nurse.

"Nursing," said a private duty nurse, "has become highly competitive. It requires that a nurse advance thru additional work in

education and have a continual source of professional knowledge of all that is new and progressive in her field" To many of the private duty nurses, another speaker said, the term 'community nursing' is loosely interpreted as meaning public health rather than community control

Instead, the whole trend in the community is to see nursing regardless of its type or the field of its performance as a whole working as groups under community wide programs. Increasingly communities are seeing that it supports the nurse whatever her field and speakers from the profession repeatedly voiced the opinion that the public is right in its expectation that all nursing be adapted to meet the changes in consumers demands

"These changes have not happened over night," said Miss Lulu St. Clair executive secretary of the Joint Committee on Community Nursing Service, "they have been predicted and talked about for years but many of us have not been willing to accept the fact that we as a group can be affected by what takes place in the social life of the community Professional groups as a whole, are slow to realize that it is to them that the public looks to chart the course to be followed."

Miss St. Clair cited among other changes the influence of the social security funds now available. This means that more public health nurses are required than ever before. In 1931, she said, the ratio of a public health nurse to the population was one nurse for every 8,000 population Last year (1937) it had already risen to one for every 7,000 Another change she gave was the action within the past year of several communities who have turned over their well-organized maternal, infant, and child hygiene programs formerly carried by well-organized visiting nurse services to health departments The only type of nursing being retained by these visiting nurse services, is the bedside nursing care. In other words, Miss St. Clair said "there is a trend toward centralization of public health nursing services within the health department."

"Will we not wake up some morning and find that some other bird has found the worm?" asked Miss St. Clair The longer we wait the greater distance we will have to cover to come abreast of other community programs The community should know where and how nursing service is available

and it is the job of nursing groups to get this interest stimulated if it is not already there"

The effect of lowered family budgets as an economic factor in creating change in consumer demand for nursing was repeatedly stressed. 'Professional nursing has to recognize that too many people can no longer afford to pay what they formerly did to have a full time nurse Then, here's another factor People are better educated and they know nowadays when they really don't need full time nursing The spread of the hourly nursing idea is one adaptation to this community pressure.

"The demand for the nurse who can combine light household duties or meeting family emergencies temporarily with nursing is definitely here whether we prefer to recognize it or not. The practical nurse is here to stay"

One reason for this was given as the vast increase of group hospitalization under the hospital service plans in which more than a million employed persons and their dependents were already enlisted last year (1937) This increase over the less than 400,000 such persons in these group hospitalization projects in 1936 has drastically reduced the call for bedside nursing within the home. One speaker said that demand for practical nurses was rapidly narrowing down to the convalescent, the mildly ill, and the chronic case

The private duty nurse it was advised should recognize these influences and prepare for the expanding specialized fields of nursing already referred to as supported by taxes, community chests, federal and state funds, and other public semi public or privately endowed sources.

The transition as a rule it was pointed out, calls for additional preparation All nurses were urged to take graduate courses whenever possible, attend seminars and institutes and through professional magazines and other literature, keep abreast of the times

A warm tribute was paid to the successful head clinic nurse in the comparatively new fields of preventive work in syphilis tuberculosis and cancer 'In the lowered mortality rate of these diseases, the part of the clinic nurse who is successful in this new role is left unsung Yet if she has an ability to build up the morale of the patient and win his cooperation to return by creat-

ing an atmosphere which meets his desire for privacy and encouragement, the results from the clinic's attack on mortality rates, will be immeasurably increased. Without professional encouragement, the work of the finest equipped clinic will be hampered. There is a vast need for an improvement among nurses in this field, along these lines, since it is a task which calls for skills in personality adjustments to keep patients faithful to the required schedules of visits."

The opinions from the lay members of each community group, although they veered from the purely personal to a community-wide appreciation of the problems at hand, had both weight and value in evaluating the requirements of the community as a whole. One local Junior League member declared that all too often "the cook went out the back door when the nurse came in the front door," adding that in the sixteen years that she had employed registered nurses for her family, she "had never found one who could sew on a button."

Other lay women made an earnest plea for a centralized nursing bureau in conjunction with other health agencies. From each of the three sessions, it was clearly evident that the civic responsibility of leadership among women has led many of them to become critical of the hit-or-miss or scattered sources of nursing care when there is no professional registry or centralized agency available. The protection offered any community by a well-run professional agency in insuring high quality of nursing was stressed by the success of the Nursing Bureaus of Nassau and Suffolk Counties. This bureau not only affords both counties a reliable source for registered nursing care, but it has also made a success of its hourly nursing service which became self-supporting

within the first two months of its existence. This has special significance since it so plainly fills a long-existed need in the community.

Practical nurses had a meeting of their own with speakers who explained the requirements for licenses under the new Nurse Practice act. This is the law which will demand a license of practical nurses in New York state after July 1, 1940.

Incidentally it was stressed that the choice between the highly skilled nursing care from an R N and the more elementary nursing from a practical nurse should not be gauged by the pocketbook. Any acutely ill person should have the best.

To those state associations who have never tried this regional institute set-up of using the locality as the theme, the question will at once arise: "Were the results satisfactory?" The members of the state association who were queried on this point were emphatic in their affirmative replies. The Institutes emphasized—gravely and with repetition—the changes in the community and the need for the individual nurse to look ahead and to train and prepare for a place in a more efficient service to the community. Above all, the Institutes revealed that the lay public now know that health is a commodity that can be bought and sold over the counter.

This being true, the Institutes exposed the fact that the public is setting its own valuation on that commodity and making their own decisions as to what they should pay for it. The nursing profession's own standards will continue to be in danger of being ignored as long as the profession allows the public to be inadequately informed as to what constitutes safe nursing care.

THOSE FATAL BIRTH-DAYS GROWING BEAUTIFULLY LESS

From the figures for the first nine months of this year, Thomas J. Duffield, registrar of records, predicted on October 8 in his report to Dr. John L. Rice, city Health Commissioner, that infant mortality and maternal deaths would drop to new low records for 1938.

The infant death rate so far this year is 40.1 for 1,000 live births, Mr. Duffield said, compared with 45.7 at this time last

year and 46.4 in 1936. The rate for last September was only thirty-one, lowest of any September in the city's history. Of the 258 infant deaths during the month, 180 occurred to babies less than one month old.

The death rate of mothers from causes connected with childbirth is now 3.5 for 1,000 live births, compared with 4.2 for the first nine months of last year and 4.7 for the same period of 1936.

Public Health News

Public Health Notes

J ROSSLYN LARP, L.R.C.P., D.P.H.
New York State Department of Health

Public Health Nursing

The subject of most urgent concern in the State Health Department during the last few weeks has been the present inadequacy of our public health nursing staff. We have become acutely aware that we never shall close the gap between our knowledge of preventive medicine and its practice in the home without a much greater supply of public health home missionaries. Those members of our department whose offices are scattered over the state have been appealing to their colleagues who are practitioners for moral support in making known this public health need to the people who can supply it. They acknowledge in most places a generous response, in some, a degree of hesitation. There are it seems a few doctors who do not regard the public health nurse as a natural ally.

It is true that before there was any public health nurse the family doctor exercised her functions. I have just been re-reading some of the essays of Dr Thomas Beddoes published in 1802.* I am impressed with his attention to the minute details of home hygiene in infant care.

"The fireplace should be so contrived, that even in cold weather a steady temperature of about sixty degrees may be kept up, for the first four or five weeks after birth. The air of the nursery should never be suffered to be below fifty degrees. And I would advise every parent to ascertain this by a thermometer, constantly kept in the room at the risque of being thought ridiculously minute." And he goes on to plead with fathers to make them willing to allow of the arrangements necessary" to afford a

*Hygiene or Essays moral and medical on the causes affecting the personal state of our middling and affluent classes.

The New York State Association of Public Health Laboratories recently adopted a resolution declaring that routine laboratory examinations of food handlers, milk handlers and domestic servants are ineffective as a protection of the public health and approving repeal of any existing legislation or mandatory regulation requiring such tests

suitable apartment to the health of their offspring. One can easily imagine him in the patient's home explaining the thermometer and its uses, the 'risques' of letting in the frosty air of winter how a newborn infant should be immersed in water at 80°F and not wet above the neck, and patiently arguing against the then current practice of washing the newborn infant up to the loins and breast in cold water exposed for several minutes, perhaps in the midst of winter.

He could only, of course, find time for such educational efforts in the homes of 'our middling and affluent classes'. Today the public health nurse can do the explaining for him in every home. 'Standards or orders' have been invented so that her explanations may not be divergent from his own teaching. And not only the thermometer is demonstrated but many even more recent inventions. She can secure the proper collection of specimens as for example sputum which even today is derived sometimes from the mouth instead of from the chest. She can induce understanding of that positive tuberculin test and gently persuade of the need for an x-ray film. As I mentioned recently she can tell the delinquent syphilitic patient who thinks she is cured why more treatment is necessary. These are time consuming tasks. And today the doctor has new responsibilities in clinical pathology and the technics of treatment that were unknown to Dr Beddoes. There are few doctors who do not welcome the aid of a trained demonstrator when they have been able to convince themselves that she is trustworthy and loyal. The standards required of our public health nurses are high. I do not believe that practicing physicians often have cause to be disappointed either in their skill or in their discretion.

as routine. The resolution pointed out that many public health authorities have seriously questioned the value of such examinations and that when results are negative a false sense of security may be engendered. It also suggested that the performance of the tests requires financial outlay with no commensurate return to public health.

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

MRS DANIEL SWAN, PRESIDENT, presided at a meeting of the Executive Board of the Woman's Auxiliary to the Medical Society of the State of New York, held in the building of the Medical Society of the County of Queens on October 20. The out-of-town board members who arrived on October 19 were the house guests of the Queens and Nassau board members.

The morning session was given over to the reading of reports by the County Presidents and the chairmen of standing committees. It was very gratifying to see what fine work the county auxiliaries are doing and how enthusiastic members are to do more work.

Mrs Buettner, chairman of Convention reported that plans were being made for the Convention to be held in Syracuse on April 24-26, 1939.

The members were the guests of Mrs Swan at luncheon given at the Seminole Club, Forest Hills. Following the afternoon session, the members made a tour of the World's Fair grounds. Mrs Harry Mencken, chairman of the World's Fair Committee, had arranged for a guide to show the members the buildings and to explain what is being planned for visitors to the Fair in 1939. Before going to the home of Mrs William Benenson for a buffet supper given to the out-of-town members by the local board members, all the members were the guests of Dr Daniel Swan. The program of activities closed with a theatre party at the Queensboro Theatre where the members enjoyed a performance of "The Circle" as the guests of the management.

The officers present were Mrs G Scott Towne, President-Elect, Mrs Edwin Griffin, First Vice President, Mrs Louis A Van Kleeck, Second Vice President, Mrs Carlton F Potter, Treasurer, Mrs Henry Hirsch, Recording Secretary, Mrs Abraham Braunstein, Corresponding Secretary. Directors present were Mrs John L Bauer, Mrs A M Bell, Mrs James Dobbins, and Mrs Francis Irving.

Chairman of Standing Committees present were Mrs John Buettner, Convention, Mrs William Godfrey, Finance, Mrs Horace

Whitely, Hygeia, Mrs William Benenson, Historian, Mrs R F Sengstacken, Legislation, Mrs Luther Kice, Organization, Mrs Thomas d'Angelo, Press, Mrs Otto Pfaff, Printing and Supplies, Mrs J Emerson Noll, Public Relations.

County Presidents present were Mrs Albert Vander Veer, 2nd, Albany, Mrs Leslie F Sullivan, Columbia, Mrs Fred-eric Elliott, Kings, Mrs H Walden Retan, Onondaga, Mrs Elmer Kleefield, Queens, Mrs James H Donnelly, Rensselaer, Mrs A N Selman, Rockland, Mrs Stanley Jones, Suffolk.

Mrs Robert Crockett of Madison County attended the meeting at the invitation of Mrs Swan.

Mrs Swan appointed Mrs George A Greene of Saratoga, Chairman of Program.

* * *

ALBANY A meeting of the Woman's Auxiliary to the Medical Society of the County of Albany was held in the auditorium of St Peter's Hospital. Miss Marguerite Jacobsen, R N, Associate Executive Secretary of the New York State Nurses Association spoke on the "New Nurse Practice Act." Plans were tentatively made for supplying layettes to the Visiting Nurse Association of Albany. A card party and tea was held at the Woman's Club of Albany. Members and women eligible to join the auxiliary were invited.

ONONDAGA The first fall meeting of the Woman's Auxiliary to the Medical Society of Onondaga County was very well attended and members seemed very eager to start another year's activities. Dr O W H Mitchell was guest speaker.

RENSSELAER The first meeting of the Executive Board of the Rensselaer County Auxiliary was held in the home of Mrs James H Donnelly.

The first general meeting was held in the Leonard Hospital where the members were welcomed by Miss Alma Ferraro, Superintendent of the Hospital. Mrs Helmer Howd was appointed chairman of Hygeia. The business session was followed by a tea.

Medical News

Albany County

THE ANNUAL MEETING of the Medical Society of the County of Albany will be on December 7, with the annual dinner shortly thereafter

Erie County

IN THE INTEREST of premature babies a portable incubator loaned by the State Department of Health has been placed in the Lancaster Health Department Office Lancaster, where it will be available at all hours to Erie County physicians. Although supplied with an electric heating unit and thermostat, it can be heated by hot water bottles. The incubator may be taken by signing for it as for laboratory supplies also kept at the office.

A similar incubator has been placed at the DeGraff Hospital in North Tonawanda for the use of physicians in Tonawanda North Tonawanda and surrounding territory. This incubator will be loaned by the Hospital for use outside.

Either incubator may be used in the transportation of a premature baby to a hospital, or for the infant's care in the home.

In Buffalo during 1937, 6.7 per cent of 9,201 babies born of known weight were 5.5 pounds or under, and four per cent weighed five pounds or less.

Sixty five per cent of deaths under one year of age in upstate New York in 1936 occurred in the first month of life and premature birth was given as the cause of death for forty six per cent of them. Ninety seven per cent of all deaths under one year of age ascribed to prematurity occurred during the neonatal period. The importance of prompt use of facilities for the best care of the baby born prematurely is evident.

DR. JOHN A. P. MILLET of New York City addressed the Section on Medicine of the Buffalo Academy of Medicine on October 12 on "Diagnosis and Treatment of Psycho-somatic Disorders" and on October 19 the Section on Obstetrics and Gynecology listened to papers on "Convalescence Following Supravaginal Hysterectomy" by Clyde L. Randall M.D., Buffalo and "The Relationship of Puerperal Gynecology to Modern Obstetrics" by Jacob L. Bubis, M.D., Cleveland, Ohio

Fulton County

DR. CHARLES CARPENTER of the Univers-

ity of Rochester gave an illustrated lecture at the regular meeting of the Medical Society of Fulton County in the Hotel Johns town on September 22

New methods of diagnosis and treatment of venereal disease were described.

Greene County

THE ANNUAL MEETING OF THE Medical Society of the County of Greene at Walters' Hotel Cairo October 11 was largely attended

The following were unanimously elected

Officers	
President	George L. Branch, Catskill
Vice-President	Al. K. Colle, Catskill
Secretary	William M. Rapp, Catskill
Treasurer	Mahlon H. Atkinson, Catskill

Chairman of Committees

Legislative	P. G. Walker
Public Relations	Curtis R. Lacy

Dr. Harry L. Chant assistant state district health officer delivered an address in which he said that the New York State Department of Health was desirous of having a county health nurse to every 5,000 population throughout the State as an aid in not only helping to treat disease but also in preventing it.

Dr. J. I. Dowling delivered an address on eye, ear, nose, and throat diseases

Dr. P. G. Waller spoke about the length of time the Medical Society of the County of Greene had been in existence and said that the organization was 132 years old. In stead of this being the 105th annual meeting, as appeared in the notice sent out to members it was really the 132d. Dr. Waller said. He produced documentary evidence to prove that the society was organized in 1806.

Herkimer County

DR. SAMUEL HYMAN district state health officer addressed the Medical Society of the County of Herkimer at the monthly meeting on October 11

Kings County

SOUTH BROOKLYN medical societies are aroused over alleged abuses in the free clinics of the health department.

For example expectant mothers have been among the crowds jamming the doors of the Red Hook Gowanus venereal disease clinic at Baltic and Court Sts following the trans-

fer of 4,500 patients from the Fleet St clinic because of repair work, it was charged by the South Brooklyn Medical Society

The society, according to Dr P J Imperato, has enlisted the aid of other medical groups in the area in a fight to improve the treatment offered disease sufferers

"The clinic director has on file any number of letters from physicians who would be willing to treat these persons at \$1 each—which is less than what it actually costs the city," he said "Certainly the quality of the work would be better, more comfortable to the patient and without exposing him or her to the shame of parading one's need for treatment before others similarly afflicted"

Other organizations listed by Dr Imperato as joining in the move for investigation of the functioning of the syphilis control program include Coney Island, Flatbush, East Flatbush, Ocean, Bay Ridge, Brighton, Ridgeboro, Bedford, East New York, Williamsburg, and North Brooklyn Medical Societies

PHYSICIANS AND MEDICAL STUDENTS are cordially invited to attend a series of four Saturday morning meetings at the headquarters of the Medical Society of the County of Kings, 1313 Bedford Avenue, Saturday mornings at 11 o'clock beginning November 19 The subject of discussion will be "Syphilis for the General Practitioner" The program follows

Nov 19 (1) "Health Department Facilities for Physicians provided by the Bureau of Social Hygiene" by Dr Theodore Rosenthal (2) "Management of Patient with Primary Syphilis" by Dr Herman Goodman

Nov 26 "Management of Patient with Early Syphilis" by Dr Alfred Potter

Dec. 3 "Management of Patient with Late Syphilis" by Dr Edwin P Maynard, Jr

Dec. 10 "Management of Pregnant Women with Syphilis" by Dr William T Daily

THE FOLLOWING PROGRAM was presented at the meeting of the Medical Society of the County of Kings on October 18

(a) "The Doctor Sits at the Cross-Roads" Nathan B Van Etten, M D, F A C P, Bronx, N Y (see page 1427), (b) "An Interpretation of the Principles and Proposals of the Informal Committee of Physicians" (The Committee of 430) Robert B Osgood, M D, F A C S, Boston, Mass., (c) "The Attitude of the American Medical Association Toward the Proposals of the National Health Conference" Irvin Abell, M D, F A C S, President, American Medical Assn, Louisville, Ky

A COURSE IN EFFECTIVE SPEAKING, personality training and human relationships is being offered by the Medical Society of the

County of Kings on Mondays at 3 30 in the headquarters building of the society The course, directed by Augustus E Califano, will be held on ten Monday afternoons

Madison County

THE 132ND ANNUAL DINNER MEETING of the Madison County Medical Society was held in Oneida on October 13 A feature of the meeting was a unanimous vote to endorse the action of the State Society against socialized medicine

Three addresses were given during the afternoon session, the president's welcome by Dr R B Cuthbert, and talks on "Acute Infectious Mononucleosis," by Dr Earl E. Mack and on "The Practitioner Looks on State Medicine," by Dr Carlton C Curtiss

At the evening session which followed a dinner, Dr Gordon D Hoople gave an address on the "Diagnostic Use of the Bronchoscope and Esophagoscope."

Another talk was given at the evening session by Dr Tracy Bryant on "Gas Bacillus Infection"

Officers elected for the following year included Drs Ernest Freshman, president, Everett Centerwall, vice-president, Lee S Preston, secretary, E W Carpenter, treasurer

Announcement was made that Madison County was one of fifteen counties in the State selected for a survey on the need and supply of medical care, made under auspices of the American Medical Association Plans will be devised for conducting the survey

The association also approved, and will conduct, a series of lectures on pneumonia and its treatment for the Madison County Home Bureau

Monroe County

INAUGURATION OF AN EDUCATIONAL campaign to combat diabetes is recommended by a special committee of the Monroe County Medical Society and approved by the Rochester committee of the Tuberculosis and Health Association

Dr Charles B F Gibbs, chairman of the committee on metabolic and deficiency diseases, of the county society, presented the recommendations at a meeting in the University Club

"One person in every 200 over forty years of age suffers from diabetes, a preventable and controllable disease," he said The rate in children, it was reported, is only one in 8,000 The recommendations will be referred for study to a committee headed by Herman J Norton, director of health and physical education in the Rochester public schools

New York County

PROPOSALS TO ESTABLISH a "medical co-operative" in New York, whereby medical and surgical care would be offered to families under two plans, for \$16 and \$24 a year respectively are not viewed with favor by *The New York Medical Week* in an editorial headed "Where's the Bargain?"

Cheap? Let us examine the fee schedule in greater detail.

"The \$16-a-year service is too incomplete to receive serious consideration as a solution of the problem of medical care for the masses. What does the \$24 plan offer?"

"First of all for the average American family of four and a half persons, the yearly dues would be \$94. This would not include hospitalization, medicines, dental care or special medical equipment. In other words the average family would have to pay out \$94 a year for service it might not need. Should it actually require surgery or hospitalization for any other cause, it would have to dig down in its jeans for hospital, nurses and drugs, just as it does now. Dental bills would also be extra.

"It is hard to see where the public would be getting such a bargain in this arrangement. If the public desires medical cooperatives, it will undoubtedly get them, one way or another. Let there be no idea, however that such service would be cheaper than comparable private medical care."

AN ESTATE TAX APPRAISAL shows that Dr. Frank R. Oastler, head of the gynecology department of Lenox Hill Hospital, who died on August 2, 1936 left a gross estate of \$1,660,687 and a net estate of \$1,547,054. His widow receives the income. After her death the estate goes to the department of forestry of Yale University.

THE NEW YORK ACADEMY OF MEDICINE will hold a stated meeting on December 1. The program on Serum therapy in pneumonia includes 1. "Present status of serum therapy" by Russell L. Cecil, M.D. 2. "Results with rabbit serum" by Colin M. MacLeod, M.D. 3. "Program for meeting the pneumonia situation" by Wheeler D. Sutcliffe, M.D. Discussion will be by Drs. Edward Tolstol, Jesse G. M. Bullowa, and Ralph S. Muckenfuss.

Niagara County

DR. FREDERICK R. MCBRIEN, who died on September 23, had practiced medicine in Niagara Falls forty-seven years.

Oneida County

THE ONEIDA COUNTY MEDICAL Society

met at the Marcy State Hospital on October 11 and listened to an interesting program by the hospital staff. A psychiatric program was prepared by Dr. William Wright, superintendent.

UNUSUAL SUCCESS has marked psychiatrists' treatment of dementia precox by insulin and metrazone therapy, Dr. L. L. Bryan, Marcy Hospital, told members of the Utica and Syracuse Academies of Medicine at a joint meeting at the Teugega County Club on September 22.

Dr. Bryan reported that of 1,000 cases in the state so treated last year 12.9 per cent recovered, 27.1 per cent showed much improvement and 25.3 per cent showed gains. Before the treatment was introduced only 3.5 per cent recovered, 11.2 per cent reported much improvement and 7.4 per cent any gains, he said.

About 125 persons attended. A joint paper prepared by Dr. H. H. Dodds and Dr. F. M. Miller both of Utica on Myocarditis was presented. The Syracuse group was awarded the golf trophy for the tournament conducted in the afternoon.

Onondaga County

THE MEMBERS OF THE Onondaga County Medical Society were guests of Dr. H. A. Steckel, director of Syracuse Psychopathic Hospital, at their meeting there on October 4, and listened to the following program:

1. "Observations on the Clinic Treatment of Central Nervous System Syphilis," by Dr. Carl Whittaker, Resident Physician. 2. (a) "Psychiatric Aspects of the Treatment of Orchidism," by Dr. Eugene Davidoff, Associate in Psychiatry. (b) "Observations in the Play Technic in Children and Juveniles," by Dr. Davidoff.

THE PROGRAM OF THE Syracuse Academy of Medicine on October 18 at the University Club was "Present Day Trends in Public Health," by Dr. H. Burton Doust, Commissioner of Health. *From the Viewpoints of—* 1. Public Health Administration. 2. Department of City Laboratory. 3. Department of Social Hygiene. 4. Department of Tuberculosis. 5. Department of Child Hygiene. 6. Department of Communicable Diseases.

Ontario County

DR. ALFRED W. ARMSTRONG was made president of the Ontario County Medical Society at the 133d annual meeting of the society held at Wenna Kenna, east Canandaigua Lake shore, on October 11.

Dr. Daniel A. Eiseline, secretary-treasurer for the past forty-one years, was reelected.

Dr A G Odell was named president-elect for 1939

As delegate to the state convention the society elected Dr H J Knickerbocker Dr W S Thomas will continue as editor of *The Bulletin*, quarterly publication of the society The next meeting will be on January 10

Queens County

THE SECTION ON SURGERY will hold a meeting at the Medical Society's building on November 17, at 8 30 P M The program will be as follows 1 "Blood Transfusions, Indications and Technic," by Lester J Unger, M D, Hematologist at Hospital of Joint Diseases, Consultant Hematologist at St Joseph's and New York Infirmary for Women and Children Discussions by Drs Edward Buxbaum and Emanuel Siner 2 "Surgical Management of Toxic Goiter," by Harry Feldman, M D, F A C S, Associate Surgeon, Greenpoint, Chief of Thyroid at Greenpoint O P D, Associate Surgeon, Beth Moses, St Catherine's and Caledonia Discussion by Drs Ezra A Wolff and Chester L Davidson All members of the Society are invited

Rockland County

THE MEDICAL SOCIETY OF THE COUNTY of Rockland held its regular Fall meeting at Letchworth Village (State Institution for the feeble-minded) on September 28 About fifty members were present

A paper entitled "Office Procedures in Gynecologic Diagnosis and Treatment" was presented by Dr Leon Loiseaux, F A C S of New York City (Attending Obstetrical and Gynecologist at the Flower-Fifth Avenue and Metropolitan Hospitals) In a simple but masterly way, Dr Loiseaux gave a very excellent and practical talk which was followed by considerable discussion

After the meeting adjourned, the doctors retired to the social session as the guests of Dr Harry C Storrs, Superintendent of Letchworth Village, and enjoyed a most delightful supper—*Reported by W J Ryan, M.D., Secy*

Seneca County

THE ANNUAL MEETING OF THE Seneca County Medical Society was held at the Willard State Hospital on October 13 These officers were elected for 1939

Officers

President Carroll B Bacon, Waterloo
Vice-President Robert F Gibbs, Seneca Falls
Secretary Treasurer Duane B Walker, Waterloo
Censors W R Holmes, E M Welberry, F W Lester

State Delegate

W Raymond Holmes

Alternate Delegate

Robert F Gibbs

On motion, it was resolved to take up the survey, as requested by the American Medical Association, to cover medical services in the County of Seneca, and Dr D B Walker was selected to head a group of three doctors to carry on the work.—*Reported by F W Lester, M D, Secy*

Ulster County

DR. HAROLD L RAKOV of Kingston, was nominated for the presidency of the Ulster County Medical Society for 1939 at the regular meeting of the society on October 11 Annual elections will be held at the December meeting

Other nominations include

Officers

Vice-President William S Bush, Kingston
Treasurer Chester B Van Gaasbeek, Kingston
Secretary C. L Gannon, Kingston

Board of Censors

F H Voss, Frederick Snyder, Fred W Holcomb
Frank A Johnston

Dr Holcomb also was named as delegate to the State Medical Society convention, with Dr B W Gifford as alternate Dr J F Larkin was nominated as delegate to the Third District Branch convention, with Dr Kenneth LeFever as alternate.

Warren County

DR. DWIGHT M SAWYER of Glens Falls was re-elected president of the Warren County Medical Society at a meeting in Glens Falls, on October 12

Dr Jesse S Parker of Glens Falls was re-elected secretary-treasurer, and Dr P H Huntington of Warrensburg, vice president.

Dr Irving Walker, clinical professor of surgery at Harvard Medical School, was guest speaker, discussing "Appendicitis"

Yates County

THE YATES COUNTY MEDICAL SOCIETY voted at its meeting on October 3 to undertake the health survey These officers were elected for 1939

Officers

President James P MacDowell, Dundee
Vice-President George H R White, Penn Yan
Secretary-Treasurer Glenn C. Hatch, Penn Yan

Delegate

Bernard S Strait

Alternate Delegate

William Porter Rhudy

Dr George Hilleman gave an interesting talk on "Infection of the deep nasal sinuses as a causative factor in headache and lower respiratory infections"—*Reported by Glenn C Hatch, M D, Sec'y and Treasurer*

Hospital News

A Boycott on Feminine Interns?

DR. LUVIA WILLARD head of pediatrics at Jamaica Hospital and associate attending pediatrician at Queens General Hospital recently returned from Los Angeles, where she presented a report on internship conditions before the biennial convention of Alpha Epsilon Iota, women's national medical fraternity of which she is a grand chapter officer.

For the past two years, Dr. Willard has been chairman of a committee appointed by the fraternity to conduct a survey intended to determine the percentage of hospitals which accepted women graduates of medical schools as interns. The survey was initiated because of the lack of internships available to women medical graduates. Dr. Willard reported that 684 hospitals had been contacted throughout the United States. Of the 400 hospitals responding to inquiry, only one third accepted women. It is estimated that since these hospitals represent only a small portion of total hospitals, approximately twenty six per cent of all institutions will take women.

Closed Doors in Queens County

In Queens County the survey shows that

Newsy Notes

MORE THAN THREE FOURTHS of the service given during 1937 by the Hospital for Joint Diseases, New York City, was to patients who were able to pay nothing or only a small part of the cost of their care, it was disclosed in the hospital's thirty first annual report. The gross deficit was \$320,850.57, the report said. Toward this, the Federation for the Support of Jewish Philanthropic Societies contributed \$185,489.30 and the United Hospital Fund \$60,130.99.

A WARNING HAS BEEN ISSUED against unauthorized door-to-door solicitors who represent themselves as affiliated with the Associated Hospital Service. No such solicitors are employed.

Improvements

A MOVEMENT HAS BEEN STARTED in Rome to build a cancer hospital in Oneida County

only two hospitals accept women on a proportionate ratio and equal requirements with men. The majority of approved leading hospitals in Queens rarely, if ever accept a woman medical graduate as an intern.

Dr. Willard has planned a campaign which will petition for the cooperation of women's organizations throughout the country in an effort to awaken public consciousness to this existing condition. She hopes by this means to induce hospitals to formulate a policy whereby interns are chosen on the basis of merit only with entire disregard for the sex of the applicant.

Dr. Willard says "women who want to study medicine do so with as much desire to serve humanity as do men physicians. Present conditions necessitate needless expense and time in order to compensate for lack of training which is available in every hospital recognized by the American Medical Association, and which is now being denied to the woman medical student."

Dr. Willard, as chairman of the committee, is handling the Queens and metropolitan area and intends to make contact with every hospital in the vicinity with a request to declare their policies.

THE NEW HUTCHINGS HALL, at the Utica State Hospital, named in honor of Dr. Richard H. Hutchings veteran head of the hospital, was dedicated on October 5.

GROUND HAS BEEN BROKEN for the new wing of Columbus Hospital in Buffalo. It will be sixty feet wide, 100 feet long and three stories tall, and will swell the hospital's bed capacity to 150.

At the Helm

THESE HOSPITAL OFFICIALS HAVE BEEN CHOSEN

Dr. Frederick C. Smith to be acting director of Grasslands Hospital

Alvin S. Rosenson, to be president of the Jewish Hospital of Brooklyn.

Frank Gulden, to be president of the Southside Hospital at Bay Shore, reelected for a fifth term.

Medicolegal

LORENZ J. BROSNAN, ESQ

Counsel, Medical Society of the State of New York

Practice of Medicine by Corporation

A case of unusual interest on the subject of the practice of medicine by a corporation arose a short time ago in one of the Pacific Coast states, and resulted a few weeks ago in a decision handed down by the highest Court of the State.*

On the instigation of the Board of Medical Examiners, proceedings in quo warranto were brought against a corporation known as Pacific Health Corporation, Inc. to obtain a judgment declaring its activities unlawful.

When the matter came up in Court there was no issue as to the fact situation, the problem for determination being solely whether under the conceded facts defendant was a violator of the laws pertaining to the practice of medicine.

Defendant was a stock corporation, operated for profit, having been organized under the general corporation law of the State. It engaged in the practice of issuing a contract, upon the application of persons in good health, under the terms of which it undertook to pay for services rendered by physicians and hospitals, and the fees of ambulance services and medical laboratories. Each applicant paid a required sum or premium, and when the contract holder became sick or was injured, he would be advised by the Health Corporation from whom he should obtain the needed services, that is, he would be referred to the physician, hospital, or ambulance available. The defendant kept a list of physicians and surgeons which it approved, and to obtain benefits under the contract, a contract holder was obliged to accept a doctor from the list, except as to emergency expenses not exceeding \$50. When the services had been rendered, the corporation would pay the charges.

It appeared that Pacific Health Corporation advertised and solicited the public for the purchase of its contracts and paid commissions to its solicitors. The monies collected were put in a general fund which together with capital and surplus was invested, and charges for professional and other services were paid out of income from investments and from the general fund.

The trial Court came to the conclusion that defendant was illegally engaged in the practice of medicine, and ordered that it be excluded from such practice. An appeal was taken to the highest Court of the State from that ruling, and several unusual contentions were made by appellant and passed upon by the Appellate Court.

The Appellant did not deny the general doctrine that a corporation may not engage in the practice of medicine, law or dentistry but attempted to distinguish its activities from those previously held to constitute the illegal practice of a profession. It claimed it did not practice medicine or undertake to perform medical services, but merely to furnish competent physicians. It pointed out that the services were not performed at its offices and that none of the physicians were on a salary, but were paid for actual services after they had been rendered. Defendant contended that the doctors remained independent contractors.

The Appellate Court in dealing with these arguments, said in the opinion, affirming the ruling of the lower Court:

We are unable to agree that the policy of the law may be circumvented by technical distinctions in the manner in which the doctors are engaged, designated or compensated by the corporation. The evils of divided loyalty and impaired confidence would seem to be equally present whether the doctor received benefits from the corporation in the form of salary or fees. And freedom of choice is destroyed and the elements of solicitation of medical business and lay control of the profession are present whenever the corporation seeks such business from the general public and turns it over to a special group of doctors.

The Court quoted from an earlier case as follows:

But we need not quibble here over the use of terms as it is immaterial whether the appointed practitioners are termed employees, agents or appointees of the petitioner. The fact remains that the petitioner's agreement was to furnish, in consideration of the premium paid by the insured, the services of doctors or dentists who were to be appointed, engaged, hired or employed by petitioner for the purpose of furnishing such services. Any such agreement is clearly condemned as unlawful and against public policy.

Defendant further, in support of its ap-

* *People v. Pacific Health Corporation*, 82 Pac (2nd), 429.

peal, asserted that an adverse ruling would impair the activities of fraternal, religious, hospital, labor and similar benevolent organizations furnishing medical service to members. In answer the Court said

The question of the effect of this decision upon any other organizations is not squarely before the court, and the information in the record as to their character and activities is meager and unsatisfactory. If we undertook to determine their legality in this proceeding, in which they are not represented, our decision would have no binding force. But it should be pointed out that the fear of applying the holding of this case to such philanthropic associations as those mentioned does not exist in the minds of the directors thereof, nor has it been suggested that the public authorities contemplate any attack on them. This illusory apprehension is expressed by defendant above, in an attempt to bolster up its case by bringing it within the general class of associations furnishing medical or health benefits which have been tacitly approved for generations. But a most obvious and to us, a fundamental distinction must be made between defendant and these other institutions. In nearly all of them, the medical service is rendered to a limited and particular group as a result of cooperative association through membership in the fraternal or other association, or as a result of employment by some corporation which has an interest in the health of its employees. The public is not solicited to purchase the medical services of a panel of doctors and the doctors are not employed or used to make profits for stockholders. In almost every case the institution is organized as a nonprofit corporation or association. Such activities are not comparable to those of private corporations operated for profit and, since the principal evils attendant upon corporate practice of medicine spring from the conflict between professional standards and obligations of the doctors and the profit motive of the corporation employer it may well be concluded that the objections of policy do not apply to nonprofit institutions. This view seems almost implicit in the decisions of the courts and it certainly has been the assumption of the public authorities, which have, as far as we are advised, never molested these organizations.

Another argument made by defendant was that the time has come as evidenced by the movement for health insurance and group medicine to reverse the settled policy against corporate practice and to declare it legal and proper. The Court in disposing of this latter argument said

All we have before us is the proof of a controversy which has raged for years, between medical men, sociologists, and others, as to the future course of medical practice. The desirability of present methods and the suggested reforms, including various kinds of insurance and group treatment, are hotly debated. Public policy may change, and doubtless where statutes do not cover the field, the court may follow such changes but the court must, in such

case, declare the public policy the social view of the people generally and not merely its own private choice among hopelessly conflicting views of desirable reform of settled practices or principles in this field. In the present circumstances there can be no true declaration by this court that a change in social viewpoint now requires the abandonment of the rule against corporate practice of medicine. Such a drastic change should come from the legislature, after the full investigation and debate which legislative organization and methods permit. Though certainly aware of the controversy and with presumed knowledge of our decisions preventing corporate practice, the legislature thus far has not acted and until it does we deem it proper to follow the existing law

Accidental Breaking of Forceps

A young man was brought to the office of a physician specializing in eye, ear, nose and throat work with a history that he had been injured by a kick in the face the previous day in the course of a football game. Examination showed a depression of the left cheek prominence with swelling and discoloration about the eye. The eye apparently was not injured and X rays showed a fracture of the left malar bone.

The patient entered a hospital, and under an anesthetic an attempt was made to reduce the fracture. In the course of the reduction the doctor endeavored to use a pair of tenaculum forceps without success. He then used a pair of bullet forceps. In the course of the use of them he felt something snap and after removing the forceps ascertained that about 1/4" had broken off the tip of one prong and about 1/8" had broken off the tip of the other prong and the fragments were left imbedded under the skin in the tissues of the face. The doctor did not probe for these two pieces of metal because he feared the possibility of stirring up an infection. X rays a few days later were taken by him which showed that one fragment was just below the malar prominence and the other was at the margin of the floor of the orbit. The X rays showed the fracture to have been properly reduced.

The patient was notified as to what happened and the removal of the foreign bodies was advised but instead of submitting to an operation for their removal patient instituted a malpractice action against the physician charging him with having been negligent in manipulating the forceps, and in having failed to use a proper pair of forceps for the purpose.

The action was never placed upon the calendar for trial and in due course upon motion of defendant's counsel was dismissed for failure to prosecute the action

Books

Operative Gynecology By Harry S Crossen, M D and Robert J Crossen, M D Fifth edition, entirely revised and reset Quarto of 1076 pages, illustrated St. Louis, C V Mosby Company, 1938 Cloth, \$12 50

The fifth edition of this remarkable book is certainly complete, and marvelously well illustrated A great deal of space is devoted to cancer of the cervix and corpus of the uterus, the long detail of the Wertheim operation, included for historical interest, might well have been omitted Retroversion operations occupy nearly a hundred pages of the text, and we suppose they do belong in a comprehensive work of this kind, yet there is much futility to them

Conservative operations on the tubes and ovaries are well discussed and illustrated, and the pages which describe Sim's and McDowell's original work are delightful The Manchester or Fothergill operation, Crossen thinks, takes too much time as he has seen it performed Fothergill's illustrations are shown, and the point is made that if only colporrhaphy is done, prolapse will not be cured And that is true, too Shortening of the parametrial tissue is essential, and easily managed by deep sutures which Fothergill and Shaw have not illustrated clearly

As an illustrated text for operative gynecology, Crossen's work is admirable

CHARLES A GORDON

A Textbook of Hematology By William Magner, M D Octavo of 395 pages, illustrated Philadelphia, P Blakiston's Son & Co, Inc., 1938 Cloth, \$4 50

This book is another addition to the increasing collection of works in hematology presented to the medical public In this instance, the author contents himself with a consideration of the morphological aspects of the subject The material is presented in the usual orthodox manner and is illustrated sparsely but well However, it adds nothing to the literature in hematology that cannot be found elsewhere

MAX LEDERER

Pneumonia and Serum Therapy By Frederick T Lord, M D and Roderick Heffron, M D Revised edition Octavo of 148 pages, illustrated New York, The Commonwealth Fund, 1938 Cloth, \$1 00

This handbook contains a wealth of information about pneumococcus lobar pneumonia In it the authors treat briefly the etiology, pathogenesis, pathology and im-

munology of pneumococcus lobar pneumonia They discuss fully the diagnosis and especially the specific therapy, as is indicated by the title, and warn against pitfalls in serum therapy Accurate and unbiased statistics are presented concerning the results of serum treatment for types I, II, V, VII, VIII and XIV pneumococcus pneumonias Its style is clear, and it can be read easily in several hours This book is recommended to the student and practitioner of medicine

ELMER H LOUGHLIN

Handbook on Social Hygiene Edited by W Bayard Long, M D and Jacob A Goldberg, M A Octavo of 442 pages, illustrated Philadelphia, Lea & Febiger, 1938 Cloth, \$4 00

This book covers in a comprehensive manner the whole subject suggested by the title One has only to read the names listed as contributors to know that the subject matter will be complete, and that the facts will be accurately set forth History, diagnosis and treatment of syphilis is first taken up, followed by special chapters on syphilis of the nervous system and syphilis of the eye and one on congenital syphilis

Gonorrhoea in both the male and female is then covered adequately, followed by chapters on venereal disease from the standpoint of the laboratory, the hospital and outpatient clinics, the department of health, social service and public welfare activities Each chapter is an essay by an authority on the particular part of social hygiene covered therein, and all are brought together in a wholly satisfactory manner making the book well worth while from every standpoint

JOHN C GRAHAM

Introduction to Ophthalmology By Peter C Kronfeld, M D Octavo of 331 pages, illustrated Springfield, Charles C Thomas, 1938 Cloth, \$3 50

From a standpoint of interesting context and progress of modern ophthalmology, this volume has many valuable chapters The literary style is very readable, and it is logically presented On the other hand, the reviewer does not understand how this book can be useful to the medical student as an introduction to ophthalmology, as so much basic material and so many of the common entities which he is apt to meet in beginning practice are omitted that the course of instruction would have to be very elaborate to supplement the text

JOHN N EVANS

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THE PREVENTION OF PNEUMONIA

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The measure of success in pneumonia prevention can only be obtained if we know the prevalence of this disease. We have very little accurate data upon this point. Actual deaths from pneumonia have been fairly accurately reported for at least twenty-five years in many states. Sometimes these data are divided into deaths from bronchopneumonia and lobar pneumonia. This death rate gives us at least an approximation of the incidence of the disease, since the case fatality rate, in lobar pneumonia at least, is quite constantly twenty five per cent. Thus, the pneumonia incidence rate is about four times the death rate.

It would be much more satisfactory from every point of view if the classification of pneumonia could be made upon an etiological rather than an anatomical basis. If we only knew how many of the cases of lobar and bronchopneumonia that occurred each year were due to the pneumococcus, if we knew in addition the type of pneumococcus that was responsible for each of these cases of pneumonia we could then determine the epidemiology of the disease much more accurately than at present. Thus we would be able to measure the effectiveness of the various factors that may be employed or may play a part in the prevention of pneumonia.

Despite our lack of detailed knowledge of pneumonia prevalence we are fairly sure that pneumonia has declined steadily

during recent years (Chart I). Certain factors have been and probably still are at work in community life which have resulted in marked reduction of deaths from pneumonia. We do not know what all these factors are nor can we measure accurately the effect that social and economic conditions such as better housing, better personal and community hygiene and sanitation, have had upon the reduction of the disease. In any estimate of the effectiveness of our present efforts in pneumonia prevention, however we must take into consideration the fact that previous to our efforts toward specific control of pneumonia the trend line of deaths from the disease was downward.

What measures may we employ which will hasten this natural tendency for pneumonia to decline? I have no method to suggest for prevention of pneumonia that gives promise of any startling or abrupt reduction of the disease. It seems probable that our best method of attack is not a frontal one, but an attack by attrition the wearing away of the mass by small apparently insignificant efforts in first one direction and then in another.

Let us begin with the simple things. Theoretically we should be able to prevent a certain proportion of the cases of pneumonia by giving careful attention to those persons who are suffering from acute upper respiratory infections. It is true that very few people who have colds develop pneumonia. It is also true that a

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large proportion of attacks of pneumonia are preceded by a common cold. Many studies have shown that the pneumococcus frequently increases in numbers in the upper respiratory tract during the course of a cold. The peak of pneumococcus prevalence in the nasopharynx is reached on the third or fourth day of the acute cold. If the individual with the cold, who has a high pneumococcus prevalence in the throat, becomes chilled, fatigued, or in any manner lowers his

direct contact with the world at large. In these highly susceptible groups, prevention of colds, particularly during the winter months, may well prevent an attack of pneumonia.

Isolation of Pneumonia Patient and Quarantine of Contacts

The procedures of isolation and quarantine have been strongly recommended as effective methods in pneumonia pre-

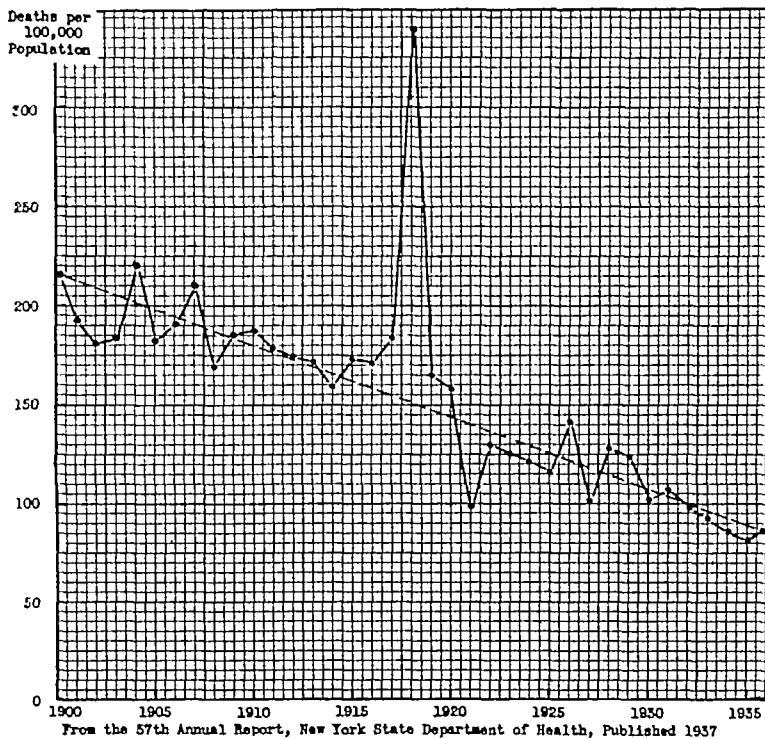


CHART I—STEADY DECLINE OF PNEUMONIA DEATH RATE IN THE STATE OF NEW YORK

threshold of resistance to further invasion of the pneumococcus, its extension to the lower respiratory tract may and frequently does occur, and pneumonia is the result. Therefore, any person with an acute cold should take special precautions to avoid untoward influence during the acute stages of an upper respiratory infection. Furthermore, there are certain groups of persons who are at greatest risk of developing pneumonia following respiratory infections. I refer to the aged, infants, and invalids. Persons belonging to these groups may and should be protected from contact with individuals suffering with acute colds. It is quite possible to prevent infection with a cold in these persons, who can be kept from

vention. We have no good evidence that these technics would be any more effective in the prevention of pneumonia than in the prevention of meningococcus meningitis. If the patient with pneumonia is in the hospital, he will not transmit his specific pneumococcus strain to the attending physicians and nurses, nor to his fellow patients in the ward. The exception to this rule seems to be the open, draining case of pneumococcus empyema. In all other pneumococcus infections, if the ordinary, simple aseptic nursing technics that are practiced in customary hospital procedures are followed, the case can be treated in the hospital ward with little or no danger to his contacts. This same rule holds true, of course, in the

meningococcus infections. It is a striking fact that these two infections—pneumonia and meningococcus meningitis—are closely parallel in many of their epidemiological characteristics.

If the case of pneumonia remains at home, it is possible that other members of the family and visitors will become infected with the specific strain that has produced pneumonia in the patient. We have a good deal of evidence to show, however, that the case of pneumonia, even when cared for in a home, and living under bad economic and sanitary conditions, does not commonly infect his contacts.

The *pneumococcus* is usually transferred by the secretions of the upper respiratory tract. Thus, the important source of infection is the carrier of the virulent strain, and not the actual case of disease. One reason for this is that the carriers are much more numerous than the cases. This fact is clearly demonstrated in our study of the B family (Chart II).

Mrs. B, the mother of a large Italian family, developed type II lobar pneumonia on February 1, 1938. She remained at home throughout her illness. On February 9 nasopharyngeal cultures were made of her own household and also of casual visitors who were not members of her household. Serial cultures were taken from these persons from that date until the present time. Every member of the patient's immediate family became a carrier, and most of them have remained carriers of virulent type II organisms. The patient promptly cleared up after her convalescence and had three successive negative cultures. On one subsequent occasion she picked up a type II strain for a short period and then discarded it promptly.

Members and friends of the family who did not live under the same roof did not become carriers of this strain (type II). The one exception to this rule was T.M. (See chart). This man was much more than a casual contact, although he did not live within the family circle.

Did the patient infect the family with virulent type II pneumococci, or did some member of the family who went out into the world to work and who had wide outside contacts bring the strain into the family? The latter probably represents the true course of events. The

whole family were invaded by this strain, yet only one member of the family developed lobar pneumonia. This represents a ratio in this family of one case of pneumonia to seven carriers of type II pneumococcus who have remained well.

We have not been able to trace any other case of type II pneumonia to this family, but their contacts are so wide and varied as they go about their work in a large city that they may well have scattered the strain to other contacts. I see no practical method of preventing this mode of spread of the pneumococcus. Theoretically, this family should have been under quarantine for the past three months. But we have no reason to believe that such quarantine would have been a feasible or effective procedure in prevention of pneumonia; thus we are not justified in quarantining it.

Although type II strain is rare in the general population it seems clear that under favorable conditions it may become highly prevalent within a narrow group of people. But only a small proportion of those who become infected with the strain actually develop pneumonia.

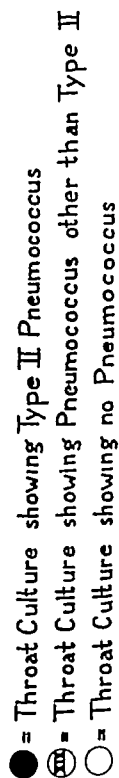
We wish to point out again how closely this picture simulates the epidemiological characteristics of the meningococcal infections.

Overcrowding of susceptible persons undoubtedly does produce a high prevalence of pneumonia, even resulting, in some instances, in true pneumonia epidemics. This characteristic of pneumonia has been demonstrated in the construction camps of the Panama Canal, the diamond and gold mine concentration camps of South Africa, and in barracks, jails, and institutions of various types. General Gorgas showed in Panama, and later in South Africa, that an improvement in housing, and a separation of the susceptible natives out into tiny individual huts prevented transfer of infection from the carriers.

This simple procedure resulted in a sharp decline in pneumonia incidence in both these areas.

In the epidemics of pneumonia that we have studied in an institute for the feeble-minded, in a Veterans' insane hospital and in the Massachusetts State hospital we found that one of the important factors in the transfer of infection seemed

Casual
Contacts



to be the intimate, personal contact that occurred within the institution. In some instances the infection was limited to certain crowded wards. Thus, it is logical to presume that prevention of overcrowding in institutions or in the tenements should result in some reduction in pneumonia incidence.

Specific Immunization

It is my personal opinion that a mass attack on pneumonia by means of immunization with soluble specific substance is not, for the present at least, a feasible procedure. It is quite true that a single injection of two Mg of specific capsular substance, will increase the threshold of resistance of an individual against that specific strain to a high degree and within a very few days, without untoward effect. This immunity will last for a reasonable length of time, probably several months.

This is a method of protection which may be utilized by the practicing physician in the protection of those of his patients whom he considers as subject to special risk from pneumonia. But the incidence of pneumonia is so low in the general population that a health department is not justified in employing pneumonia immunization as a mass procedure.

The health department is justified, however, in aiding in the protection of certain groups that are subjected to special risk from pneumonia. For example steel workers who are subjected to high temperatures, young soldiers who are sent into army barracks, young sailors who are recruited for service aboard naval vessels, patients in insane institutions, inmates of work houses, prisoners, and other groups where the known risk of

pneumonia is great, can be given a relative temporary immunity, at least, against the most important of the virulent types of pneumococcus.

In the face of an epidemic, and particularly if the prevailing type of pneumococcus is known, immunization with specific capsular substance can be secured rapidly and effectively. This is well illustrated by our experience in Bedford (Mass.) Veterans' Hospital type II epidemic, and also in the epidemic of type I pneumonia at the Worcester (Mass.) State Hospital. In each instance immunization with soluble specific substance seemed to play a rapid and definite role in checking the march of an epidemic of pneumonia. But these are obviously special conditions, infrequently encountered.

Summary

1 Isolation of the patient and quarantine of contacts is not an effective technique for the control of pneumonia.

2 Prevention of colds in special groups, and precautions taken in avoidance of untoward influences during the course of a cold should aid in prevention of pneumonia.

3 Prevention of overcrowding, particularly in institutions, should prevent a certain proportion of pneumonia cases. The reason for this is that the pneumococcus is transmitted by the carrier through close personal contact.

4 Specific immunization against the pneumococcus is a feasible procedure. At present, it can be utilized as a public health measure only under certain special and carefully selected conditions.

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Discussion

DR. EDWARD S. ROGERS, Albany—We are already deeply indebted to Dr. Smillie for his leadership in the investigation of the epidemiology of pneumonia during the past eight or ten years. I feel that the paper which he has just presented adds further to this indebtedness.

However, inasmuch as the subject still must be considered controversial, a few comments based upon our experience in New York State which bear upon some of Dr. Smillie's observations may not be irrelevant.

In discussing the case fatality from pneu-

monia as a whole and the application of a case fatality rate to the known number of deaths as a means of estimating the total number of cases occurring, Dr. Smillie used a rate of twenty five per cent. This rate is the generally accepted one, and I presume, originated from hospital observations. However, it is interesting to note that in New York State, during the year of 1935 the ratio of reported cases to reported deaths was 2.9 to 1. In 1936 presumably reflecting the influence of the statewide pneumonia program the ratio rose to 3.6 to 1, and, in 1937, it rose to 4.0 to 1 while the actual

number of deaths has remained quite constant. In other words, on the basis of reported cases and reported deaths the fatality rate in New York State now is twenty-five per cent and yet we know that reporting is far from complete. This suggests that the true case fatality rate from pneumonia in the entire population is somewhat less than twenty-five per cent, perhaps even below twenty per cent, although the possibility of inaccurate diagnosis in our experience must be kept in mind.

I am glad that Dr. Smillie emphasized the need of careful study, not only of the prevalence of pneumonia, but also of the incidence of pneumococcus types causing it. It is not as simple as it seems to organize such a study. One of the prime requisites, which apparently is often overlooked, or has been overlooked in many previous reports of type incidence, is that for each typed case reported definite information must be available as to whether or not that case was actually one of clinical pneumonia.

The constantly declining mortality rate for pneumonia since 1900, with the exception of the 1917-1918 influenza epidemic, is of considerable interest. It would seem, as Dr. Smillie has suggested, that the pneumonia program of today has attached itself to the bandwagon at the proper time. Irrespective of what we do, the results will most likely appear to be favorable unless within the next few years the effect of our constantly aging population should reach a point where it might offset the present downtrend.

To the factors which Dr. Smillie mentioned as influencing the present declining annual mortality rate perhaps should be added the effect of the tendency of present day physicians to include multiple diagnoses on death certificates, as has been pointed out by Dunn. According to the Manual of Joint Causes of Death, upon which vital statistics classifications are based, the appearance of any of a large number of other diseases or conditions upon the death certificate will cause pneumonia to be listed as a contributory rather than the primary cause.

We can no longer discuss the factors predisposing to pneumonia without including the common cold. However, it must be borne in mind that the seasonal incidence of pneumonia and of the common cold is quite coincidental and that their simultaneous occurrence might take place irrespective of a direct cause and effect relationship. Nevertheless, we are probably well advised to follow the precautions Dr. Smillie has indicated with respect to general education concerning isolation of the common cold

pending the proof or disproof of its causal relationship to pneumonia.

I am sorry that I do not have figures to support my impression, which I believe also is a rather widely accepted one, that there is greater likelihood of pneumonia developing in newly arrived personnel, such as interns and nurses of hospital staffs, recruits to military forces, or new inmates in institutions, than there is in the older population of these groups. If this is true it suggests that there is a protective factor in operation in permanent institutional and military populations. Perhaps this factor is an acquired resistance to the types of pneumococci locally prevalent. Therefore, in assuming that because secondary cases in hospital populations are infrequent, pneumonia cases are unimportant as sources of infection, one is making such assumption upon the basis of a highly selected experience.

During the past two years, we have been conducting a study of the incidence of secondary cases of pneumonia in households in certain sample areas in the State. While these data have not been submitted to searching analysis as yet, preliminary survey indicates that the secondary attack rate is significantly high and that household contacts are of importance. We, as well as many other observers, have rather numerous records of families in which two, three, or even as high as six cases have occurred within a short space of time. It would be unwarranted, it seems to me, to say simply because the case has been removed to the hospital before pneumonia develops in some other member of the household that the primary case might not have been fully as responsible for the second case as a non-pneumonic carrier, inasmuch as the limits of the incubation period of the disease are unknown.

Out of his large experience, Dr. Smillie has given us a very practical description of outbreaks in institutions where the disease often assumes its most epidemic form. While I have little or no argument with the theory of immunization to check such an outbreak, it seems to me that the evidence Dr. Smillie has presented is insufficient to prove its value. The attacks stopped in too short a period of time following vaccination to be convincing. In New York State we have had about five sharply localized community outbreaks which I can recall. In each instance these outbreaks apparently stopped in a rather abrupt manner after an interval of six weeks to two months, or presumably after the susceptible population had become exhausted.

In a "transient hotel" in the city of

Rochester, however, with a population of about 600, of which half were permanent or semi permanent and the other half constantly changing, we had an outbreak of type II pneumonia which persisted over a period of about two years. This is understandable since the population was constantly changing. Interestingly enough, last summer Dr. A. M. Johnson, Health Officer of the city with the help of Dr. C. M. Carpenter, of the Rochester University Medical School, carried out several studies of the population of the "hotel" in which they identified a number of carriers. These individuals were then isolated from the rest of the inmates. Not only did this isolation serve to keep these carriers away from the other inmates but also, evidently by reason of its discipline, it served to drive most of them from the "hotel" entirely. Consequently when

cold weather came last fall there were but two or three of these carriers who were put back into the general "hotel" population. To my knowledge, no further type II pneumonia has developed. Whether this isolation may have been a factor in breaking up the outbreak is quite impossible to say.

It is obvious that the present state of our information does not permit an approach to pneumonia control along the lines of prevention and that much future careful investigation along the lines Dr. Smillie has commenced is needed in this important field. In the meantime however we must not lose sight of the value of existing methods of treatment which if properly applied can greatly lessen the damage done by this disease during the future period in which additional methods of control are being developed.

FLUOROSCOPIC MEDICAL MOVIES

If war comes Medical Corps surgeons will be better equipped than ever before to remove shrapnel and bullets from the wounded through perfection of a new fluoroscope motion picture technic.

The system developed by Dr. William Stewart and Dr. Francis H. Ghiselin of Lenox Hill Hospital New York City was explained by the former at the Sixth District Branch meeting of the Medical Society of the State of New York recently at Elmira.

For fifteen years scientists have been working on a motion picture method to show normal movements of the internal organs. The former way was to make a series of x-ray plates in quick succession, piece these together and make movies of them. This process, however, produced only a jumpy film which oftentimes distorted the true movement of the organs.

Under the method developed by Dr. Stewart and Dr. Ghiselin however the patient is placed behind a highly-sensitized plate suitably developed so that a motion picture camera can be focussed upon it. The fluoroscope image is flashed upon the plate and the camera begins to turn simultaneously.

A very high speed camera must be used. Sixteen pictures are taken a second and because of the intensity of the x-ray the patient is usually exposed only about six seconds at one time. It is possible however to continue the picture making for twenty two seconds at a stretch without injury to the patient although some discomfort may result.

The pictures shown by Dr. Stewart at

the Elmira meeting were so clear that movements of all the organs could be easily watched and, in the case of the surgeon studied.

Thus, when an operation is to be performed or a foreign object removed the surgeon is enabled to know exactly what he is seeking and exactly where he will find it.

The motion picture technic is considered to have three major advantages in addition to that immediately concerned with the case at hand. These are:

- 1 It provides a permanent record for doctors to use and with which to compare cases.

- 2 The workings of the human system can be watched at leisure without danger of being exposed to x-rays which burn flesh, cause sterility and can destroy internal tissue.

- 3 The movies can easily be sent to distant places to be used for consultation with other doctors.

Recalling his experiences in the World War, Dr. Martin B. Tinker said it was often extremely difficult to remove bullets and shrapnel from chest locations for fear of rupturing blood vessels or a lung. The surgeons naturally could not exactly locate the foreign object immediately.

With the moving picture technic, however, that can be avoided. A picture can be made, showing not only the location of the matter but also its effect on the movements of the internal organs. Through this infallible key, the surgeon can operate exactly and with certainty since he is already acquainted with what he must do and how far he can go.

ALCOHOLISM AS A PSYCHIATRIC MEDICAL PROBLEM

E B ALLEN, M D, *White Plains*

Until recently the physician has been content with the rest of society to look upon alcoholism as a social problem. He has left its solution to the legislature, the reformer, the clergyman or possibly the school teacher. But as civilization has become more complex and as the automobile has acquired a dominant role in our economic and social life, the physician has been called in with increasing frequency by the civic authorities to determine whether certain individuals were capable of adequately managing these machines, when under the influence of alcohol. He has even then been inclined to look upon it as more or less of a social or a legal question, rather than a strictly medical one. He has had simply to determine whether the infringer of some traffic regulation or the instigator of an auto accident was sufficiently under the influence of alcohol at the time as not to be able to coordinate properly. Undoubtedly questions of judgment are involved, but these have been difficult to decide and have been clouded by the more objective one of proper muscular response. There have also been other occasions when he has been obliged to quiet a disturbed alcoholic in his home with sedative drugs or to treat a case of delirium tremens in a hospital.

But in the first of these instances he has hardly assumed a physician-patient relationship to the victim of Bacchus and in the others his role has been chiefly as an assistant to a sobering-up process. He has done little to prevent a recurrence of such episodes or he has found such attempts more or less futile. He has possibly failed to see that these episodes are the result of the previous faulty emotional development of these unfortunate individuals or if he has been aware of it, he has been at a loss to know how to correct it.

As regards the latter, I must confess the psychiatrists frequently find them-

selves in the same situation. But some have had an opportunity to study these alcoholics or "problem drinkers" as Durfee more charitably calls them, over prolonged periods and to learn of the nature of the development of their personality inadequacies. It is out of such inadequacies that the alcoholic has arisen. Until we are aware of them and their nature, we can do little in effecting their solution.

It is my purpose to help you to have a better understanding of the alcoholic personality, of his tragic weaknesses, of the often unconscious but nevertheless pernicious influence of his associates and relatives. Even the physician and the psychiatrist are not altogether blameless. But I also wish to show how out of this knowledge something constructive may be offered and a feeling of optimism developed. I wish to indicate how the physician and the psychiatrist may be of mutual assistance to each other.

In doing this we must first stop and consider the social significance of alcohol and the tremendous emotional value it has to the human consciousness. When Eve ate of the apple from the tree of knowledge in the Garden of Eden, she made all mankind conscious. She made man aware of his temporary existence as an integrated being. She made him able to conceive of the terms "space" and "time", of the beginning and the ending of whatever is and of his relationship in space to other beings. This consciousness separated man from all other forms of animal life and made him superior.

But this knowledge and resultant power also bequeathed such tremendous responsibilities to man that he has never been able to accept them or see them in their entirety. Fear of the efforts entailed in doing so or the decisions he would be called upon to make and their resulting consequences have continued to blind his eyes since this myth was created to

explain what had slowly developed through previous centuries

All educational methods have been directed to intellectual pursuits, but the emotional life of man, a far more intangible quantity, has been left to struggle by itself. Intelligence has been of some assistance, but no studied efforts have been made to control, direct, and to further develop our emotional life. In fact everything has been done to lessen the intensity of the emotional strivings of man. His feelings have been palliated. Truths have been disguised and man has been given illusions to trick him into passive acceptance and resignation. Methods have been taken to lessen the pricks of consciousness. Anesthetics of both a psychic and a material nature have been devised to assuage them, to lessen forces of awareness and, in some cases to obliterate them for the time being. Eve did not fully consume the apple, there was some ignorance left. If our emotions could have been directed towards more useful channels the process would have been painful, perhaps the world would have been a more uncomfortable place in which to live and doubtless many more would have fallen by the wayside, but we like to think that the ultimate emotional stability we would have achieved would have made us capable of greater things and lessened the number of our fears. In time, we might have become more comfortable than now.

As we look at distressed mankind, we find that some are sufficiently talented to turn to science or art and thus direct their energies away from their troubles. They find solace through work, but I have found that few can refrain from turning to other emotional releases at times. Hence the necessity of vacations. In the main mankind struggles through life with three chief palliatives—a neurosis, alcohol or religion. I am using the term 'neurosis' in its broadest sense to include also the psychoses. These three palliatives are perhaps only different manifestations of the same thing, but attention to these manifestations enables us to better understand the psychology of the alcoholic. There is a fourth palliative, the relief of sexual tension chiefly through autoerotic acts. It is possible that normal sexual intercourse would relieve the necessity for

any of these palliatives, but the taboos of our civilization are such potent factors that we find it extremely difficult to define what we mean by normal.

If we stop and consider these palliatives, we find that the quantitative values that we give to them are relatively proportionate. We must realize then the importance that alcohol plays in our emotional life.

We find that any one of these palliatives may replace one of the others. Many a neurosis has had its distressing symptoms assuaged by an addiction to autoeroticism, to alcoholism or by a profound religious conversion.

Where we isolate alcohol from this group we find that it has a tremendous emotional value in the lives of all of us which is generally overlooked. Why has it had such a value throughout the life history of the human race that a god, namely, Bacchus or Dionysus has been created in its honor whom we all at times have worshipped? Why is it that as soon as we attempt to point out the evils of alcoholism and do something positive to abate them we are beset with resistances on all sides? Many lend us their verbal approval but let us attempt to deprive them of any further contact with it and immediately we are scorned, laughed at, ridiculed, called reformers and provoke much the same internal resistances as though we deprived them of their religion. Why are such feelings provoked? Why does society refer to the constitution of the United States and speak of it as their inalienable right to drink? Why is it impossible to get all feeling either positive or negative, about alcohol out of our consciousness?

In the alcoholic personality we find the answers to these questions clearly portrayed, while in more stable types they are more or less adumbrated. We find that the alcoholic's peace and contentment come through oral gratifications. He has a close but ambivalent relation to his mother. He would like to be independent but can never break away from maternal dependence. He has never resolved the problem of weaning.

It is only through an understanding of this problem that the causes of the eccentricities of the alcoholic become apparent. But we must remember that the

eccentricities are present in all of us, only to a less disabling degree

The infant is ushered at birth into a light, cold, and slowly responsive environment. There are no longer any soft muscular walls to check the extent of his movements or surrounding liquid media to balance their awkwardness. Some studied, purposeful aid has to be rendered him or he would die. He longs to retreat again to darkness and warmth. Swaddling clothes confine his movements, but the only way he can return to darkness and warmth is through the ingestion of milk. He suckles this from the mother's nipple. His face flushes, he coos with delight, he feels warm and satisfied and now darkness comes through sleep. For weeks he has to make temporary and only partial adjustments to the world around him. Milk does two things. It promotes growth, strength, and capacity for gradually increasing sensual perceptions with resulting grasp of his environment and at the same time enables him to withdraw from it through sleep. It is nature's first anesthetic to all mankind, the first to blot out his discomforts and make life endurable.

As the infant grows into a child, other foods are added to his diet. First come thick fluids, such as gruels, then soft solids, and with the advent of teeth the solid foods. The infant develops from a passive, sucking stage to a more active and aggressive biting and chewing one. He develops from an oral liquid to an oral solid stage of ingestion. Milk loses its infantile dominating value, but at the same time it is something the young child can turn back to in time of need, if digestive disturbances arise. But now the child has been weaned, if he has been subject to proper maternal influences, and his source of nutriment is no longer from the mother, but that more abundant one, the cow. If the infant has not been satisfactorily weaned by the time he becomes a child at two years of age, his future is beset with many unforeseen dangers. This transition from an oral liquid to an oral solid stage of nutritive ingestion, I look upon as an important one in the development of the future alcoholic.

The alcoholic appears to be more or less fixed at this oral liquid stage of existence in his emotional development. When

he regresses to periods of excessive alcoholic indulgence, he wants his alcohol uncontaminated by solid food. Even when he compromises on substitutes, he usually resorts to liquids—sodas, coffee, cider, orange juice, rather than ice cream or other solid delicacies. He may select candy, but we must remember that there is a close chemical relationship between the sugars and the alcohols. It is only when he is happy and contented that he indulges in overeating, rather than overdrinking.

The individual who has developed to an oral solid stage is the one who sublimates his instinctive urges with solids rather than fluids. He may enjoy alcoholic beverages, but he takes solid food with them, and longs for the same. He has reached a higher level of integration, not only physiologically, but psychologically. He is a much more stable individual than the alcoholic, more dependable, both a better employer and a employee, although his *avoirdupois* puts an added strain on his heart and he generally dies suddenly in middle age of cardiac complications.

As the child grows older, his interest in milk wanes. It has less emotional value. There is a strong psychological influence brought to bear on his thinking. He longs to be an adult. Only "sissies" and babies drink milk. He is a man and wants meat and potatoes.

But alas the trials and tribulations of life do not abate when we have become better adjusted to our environment without ever conscious and painful effort. In fact they multiply. Economic and social adjustments become increasingly complex and difficult. Sexual urges demand heterosexual compensations to be conventionally acceptable. In meeting all these perplexities adults betray many weaknesses in the integration of their personalities. They often have feelings like the infant of being uncomfortable and wanting to get away from it all. To quote from Prokosch,* they are "afraid of the primeval terror of thought, of contemplating the vast inhuman laws of the universe."

But the adult possesses a consciousness

* From "The Seven Who Fled" by Frederic Prokosch. Harper & Bros., 1937.

Milk was sufficient for warmth and sleep and a resultant withdrawal from reality for him as an infant, but as he developed and became aware that he was conscious, it ceased to satisfy. The majority are troubled and worried about many matters, the economically insecure financier, the socially inadequate professional man, and the frigid housewife. What do these people do? Their whole life, all of their civilized existence is a subtle, but immature, escape. They turn to music in the modern tempo, to partisan newspapers and journals to oratory, crowds, radical and economic theories, and to country-club affiliations. But they all meet on a common ground and with a mutual interest in alcoholic indulgence. It is only the degree that varies, not the method. The infant's anesthetic of milk has been replaced by the adult one of alcohol. Formal religion, except for its display of one's social or economic standing, has been superseded by communal alcoholism as the chief means of emotional solace. The cocktail bar has replaced the meeting house. We now base our faith on the bottle, rather than the icon or the crucifix. The weekly newspage of religious services has become lost amid the daily colorful advertising of those seductive liquors that make the man of sixty feel like the lad of sixteen and act like him.

Alcohol has been the chief and most satisfying anesthetic for psychic pain throughout the ages. In the adult it produces much the same effect that milk produces in the infant. In moderate amounts it produces a feeling of warmth, the capillaries become suffused with blood and one is insulated from the world. The adult sings or indulges in risqué comment, where the infant coos or gurgles. Further alcoholic indulgence leads to drowsy stupor and sleep. In other words, blessed forgetfulness. Because of its great usefulness, it has reached a degree of social acceptability which will doubtless always prevail. It is safer than drugs, more insidious in its effects, and the dosage can be more carefully regulated.

While at the present time it has assumed an ascendancy over religion at least of a formal nature, I do not wish to infer that it always will. *Religion and alcohol* will always be necessary to our emotional security. History has always taught us

what happens when we resort to religious persecution or attempt to prohibit the sale of alcohol. If there were no alcohol or religion, mankind would soon be distilling the first and recreating the second out of pure emotional necessity. There are many substitutes for both, but nothing that can entirely replace them. Depending on the times and the emotional needs of the people, sometimes one will be in ascendancy and sometimes the other. Neither will ever offer an entirely satisfactory solution of emotional needs but alcohol will make the present endurable and religion will offer us *future rewards*.

The close relation between religion and alcohol is often overlooked. Wine plays an important role in all sacramental services. The alcoholic is innately religious. I have seen many when they could not obtain alcohol turn to prayer. Even their profanity would be of little use without a God. We all know the contentment and the peace that comes from a devout religious life to those so disposed but on the other hand we know the suffering that comes from religious intolerance from the hypocrisy of those who feel more virtuous than their companions, and from the sadistic enthusiasm with which they seek to force their opinions and dictums upon others. The same holds true of alcoholic indulgence. The alcoholic turns to drink under the same distressing conditions that the more devout turns to prayer.

Alcohol has been one of the blessings of mankind when kept under due control and one of its curses when such indulgence has become uncontrolled. But we should not overlook the fact that all which is said in favor of alcoholic indulgence, when true, is largely emotional in character. It requires poetry, song or dramatized fiction to do it justice. On the other hand, all that is said against it when true, is largely of an intellectual nature. Cold calm conservative facts of a scientific character may be more revealing and more consistent with reality but they awaken little enthusiasm. "The Rubaiyat of Omar Khayyam" has its millions of readers while Haven Emerson's "Alcohol and Man" has its few hundreds.

This extended peroration is for the purpose of introducing and giving us some insight into the emotional value we

all attach to alcohol and into our inconsistent and hypocritical attitudes toward it. It is this inconsistent attitude that makes the problem of and for the alcoholic all the greater. If we are so inconsistent and ambivalent ourselves, how can we expect the alcoholic, with his greater weaknesses, to be consistent?

It is fitting that we briefly review some of these inconsistencies in order to understand the rationalizations and temptations of the alcoholic more clearly. If we all place a value on alcohol, how can we expect him to feel otherwise? Our own attitude is influenced by the opinion of others, like that of the alcoholic.

Let us take first the teetotaler, if there are any such. What does he do? He obtains a sadistic pleasure in depriving others of what he is afraid to indulge in himself. Therefore alcohol has an emotional value for him. He may be more moderate in some cases and refrain from being sufficient of a reformer to deprive others, but he at least gets the satisfaction of preaching his own continence.

When we stop and consider such people, we find that they are sadists of the most overt form. They are most uncomfortable to associate with. A chill pervades their atmosphere. They excel in exerting their authority. Our dictators come from this class. Hitler neither smokes nor drinks. Mussolini allows nothing stronger than the milder fermented juices of the grape grown on the hillsides of his native country to pass his lips. Stalin comes from a more rugged and colder clime. He condescends to an occasional sip of brandy. All these men go to sleep at night with a self assurance of their intellectual integrity the morning after. The dictator, however, is more moderate in his views and more far-seeing than the reformer. He does not deprive his subjects of alcohol. He realizes he is the stronger and they possibly the more comfortable, but probably the weaker by his not doing so. The alcoholic is of a more passive nature. He is content to live and let live. His sadism is only aroused by frustrations, of not being able to have what he wants at the moment. He is essentially more of a masochist—a sufferer. His life is one of inferiority, fear, and discomfort. The death instinct is stronger in him. It is

evidenced by his desire to be completely anesthetized from reality through alcohol and the repeated dangers and accidents to which he subjects himself. There is often an unconscious motivation for his auto accidents.

Some of our teetotalers are less sadistic. They dislike seeing others drink. They speak of it as "disgusting" and yet what do they do? A spinster would not drink "the foul stuff" but she is not averse to receiving a bottle of whiskey as a gift, then selling it and profiting thereby. A group of townswomen discuss the evils of strong drink. The question soon arises among them whether there are not extenuating circumstances in some cases. They decide that surely none of them would want to have it on their consciences when they went to meet their Maker that they had refrained from giving a dram of whiskey to a sick relative in the night, when medical aid was not available, and had hastened his death thereby. A religious family boast of their alcoholic abstinence but they never refrain from putting a bottle of whiskey beside the Bible in the suitcase of one of their beloved when he departs for a journey away from the family circle. When their daughter departs on her honeymoon, her clerical husband finds the same in his luggage. I sometimes wonder if there is a family sufficiently strong to defy Bacchus by not having a bottle of liquor on a closet shelf, hidden from the public eye, but available for those proverbial cramps that so often unexpectedly occur at midnight. Some of my New England ancestors preached abstinence in the community, but fattened their material existence by importing Jamaica rum or assisting in the process. The emotional value of alcohol in the above situations, I leave for you to judge.

Now let us consider the moderate drinker. He surely is not going to sacrifice his comfort for the sake of the ungrateful alcoholic. What does this person do? The wife of a prominent citizen has an alcoholic son, but she does not consider it expedient not to have alcohol in the house. She fails to see how much stronger her example could be than any verbal comments. She even debates with this son's physician the relative merits of pre- and postprohibition gin. The wife of

an inebriate assures the physician she is not going to deprive herself of the pleasure of an occasional drink. She owes it to herself as compensation for all she has had to put up with from her husband's alcoholic overindulgences in the past. The parents of an alcoholic and psychopathic boy welcome his return home from a period of disastrous alcoholism in a distant city with a cocktail party. Of course they do not expect him to drink. Well not more than one anyway. The wife of another alcoholic husband sees no inconsistency in demanding his accompanying her in the future to parties, where she will drink as much as she can comfortably hold, but at the same time enjoy nagging him in her reiteration that he must not drink a drop. In fact this wife was consistent in her inconsistencies. She earned her living while he was a hospital inebriate by using her seductive charms and her circle of friends to stimulate trade in a liquor store. A married woman of convivial tastes entertains a convalescent alcoholic in her apartment. She knows his former predilection for whiskey and gin, but congratulates his physician later. She thinks he has done a good job with the patient. She offered the latter a glass of sherry and he refused even that. She is perplexed at first at the physician's admonitions. A few days later she sarcastically reminds the physician that his patient is still being a good boy. Her own resentment at the self control of another is readily apparent. She is like so many of the wives of our alcoholics who seem to resent the fact that their spouses have become abstinent. They dislike the restraints it places upon them and sometimes retaliate by becoming alcoholics themselves.

But the physicians are surely wiser. They tell their alcoholic patients that the trouble with them is they cannot drink like gentlemen, like the physician for instance. They hold out false hopes to the patient of the time when he may drink moderately again. Whatever may be our sympathies in this matter, there is one axiom that must be absolutely obeyed in the treatment of the alcoholic if any success is to be obtained. It is this. Once an alcoholic the victim must become a total abstainer for the rest of his life. He must be even stronger in his convictions

about this than the society around him which I am endeavoring to present. One physician was so interested in an alcoholic patient, not only professionally but as a friend, that he persuaded him to enter a hospital. Before doing so he invited the patient to his home for a Christmas party. The physician served highballs and cocktails. He prevented the patient from having any, although the latter's wife indulged. But the physician was infiltrated with the warmth of human kindness. He allowed the patient to have wine instead. Unfortunately this physician had one bad eye. The patient took the precaution to stand or sit on that side of the physician. Consequently the innocent physician was not aware of the amount of wine his patient was consuming nor of the fact that the patient fortified his wine with a few drops of gin, but unfortunately for the patient he had the usual morning after.

A psychoanalyst is more apt to see the inconsistencies in his own character formation. One of my friends is such. He wishes his alcoholic patients to be abstinent while under analysis with him, but after he had cured them of alcoholism by this method, he sees no reason why they should not take an occasional drink if they wish. When he is asked to analyze this attitude within himself which is not consistent with that of those experienced in handling alcoholics he is honest and reveals the truth of the situation. He is somewhat exasperated, it is true, but he explains, "Why damn it, I like a drink myself once in a while."

In approaching alcoholism as a medical problem, it is only when we are conscious of all the above factors that we are competent to do much about it. We must be ever on our guard not to betray to the patient that alcohol has any emotional significance for us. As soon as we do, the alcoholic immediately makes use of this indicated emotional attitude to excuse himself and to belittle our assistance. I do not say that the physician or the psychiatrist should or should not drink—he must handle that problem as best stabilizes his own emotional life as he handles his religion or his sexual urges—but I do say he must not let it affect in any way his attitude towards his patients. He should never drink in their presence or

indicate he would enjoy doing so. No one has any faith in the advice or teaching of another who boasts or even admits of his ability to do the thing he advises another not to do.

Now we come to the alcoholic himself. What is an alcoholic? In what way does he differ from the social drinker? Is his problem chiefly physical? Is it a matter of allergy? Is it a question of being weak-willed? Is it a sex problem? Is it a question of heredity or environment? I will endeavor to answer these questions and illustrate with some case material. In fact I have already hinted at some of the answers above.

The alcoholic is an individual who is weaker than his fellow men in his emotional development. He has never emancipated himself or completely been weaned from his mother. Physically yes, but not in his emotional dependency and attachment. He has never been able to rely entirely upon himself and compete with other men. He cannot identify himself with his father and lead the same successful existence. In his family life he never plays a successful father role to his children or that of a husband to his wife. His own immediate gratifications come first. He lives entirely in the present and takes little thought of the future. He cannot ignore the wish of the moment for a future gain. Consequently he is impatient, restless and always wanting to do something. He cannot be comfortable alone. He is never happy with his own thoughts. When every wish is gratified and he has no responsibilities he can often sit and contentedly day-dream for brief periods, but generally he wants to be doing something, something to make him forget himself. That is why he is often compelled to take long walks, to indulge in strenuous physical exercise or competitive sports. He often does well in the latter, but is never a champion. Frequently he is awkward and he is subject to repeated injuries. He may not be aware of it, but these injuries help him for a time to escape an active participation in things and allow him to be nursed, the thing he enjoyed as an infant. He will often rush into some business activity and do very well for a time, but his interest is not well sustained, and after a varying period he fails. It is in the

nature of an overcompensation. We have spoken of him as an oral type and these overcompensations are of an oral nature.

He is most successful as a salesman, where he can talk and put over sales with the very pressure of his oral activity. But as a salesman he is most successful when he can travel from place to place and be ever on the go. When you wish to picture an alcoholic, think of the popular conception of a traveling salesman and you will have a pretty good idea of the alcoholic personality. He rushes from town to town, puts over his sales during the day with verbal insincerity, and has the evenings for ladies and liquor. On his travels he frequents smoking rooms and indulges in risqué comments with other personalities as unstable as his own. He is away from all the cares and responsibilities of the home. Someone else is training his children and looking after their interests. I have no wish to belittle or detract from the virtues of the traveling salesman and please remember I said the alcoholic fits in with the popular conception of him. Many of them, especially the prevailingly successful ones, are far different from this. The alcoholic personality can sustain this pace for only a relatively short time.

The alcoholic can be successful in other businesses, as well, or in the professions, but in these he has to have opportunities for oral expression. Many can plead cases very convincingly as lawyers. Others can provoke deep emotions with their oratory.

There are two outstanding types of alcoholics. Both are composed of inadequate personalities. Their alcoholism is an expression of these underlying inadequacies. There is the psychopathic alcoholic who is inadequate from youth, who starts drinking about puberty and who never accomplishes anything worth-while. In this type the prognosis is exceedingly poor. The other type is the neurotic alcoholic. This type may show underlying inadequacies in youth, but they can generally find overcompensations in business, in the arts or possibly the sciences to sustain them for a while. They are generally fortunate in having financial backing, or family influence to help them along or they are able to direct their tremendous dynamic energies into useful economic channels for the time being, but finally

their overcompensations fail them and as a result of sudden overwhelming frustrations, they resort to alcohol.

The alcoholic differs from the social drinker in not being able to control his alcoholic indulgence. The social drinker enjoys beer, wine, or wants his liquor diluted. He may drink because he likes the taste of his beverage or to get a mild kick from it. He often drinks every day and he may occasionally become intoxicated, but he drinks for social reasons and conscious purposes. He rarely allows his drinking to interfere with his business or his family responsibilities. He is able to go to work the next morning and can keep his mind on his duties.

The alcoholic or "problem drinker" is one who drinks in response to an inner urge, of the nature of which he is unaware. He does not drink for the taste but for the effect. He is the type who drinks to overcome his embarrassment and self-consciousness. He drinks before going to a dance, or to make a speech or when he is alone because he feels hurt or sorry for himself. He can hardly wait during business or professional hours for the drink that is going to pep him up for the golf game or to meet friends in the evening. He may fall within the classification of the social drinker for a while but as soon as he takes his first drink in the morning to get over the jitters and get to the office, he becomes an alcoholic.

There are prodromal signs that he is to become an alcoholic and they are not necessarily intoxication. There are many alcoholics who rarely become intoxicated. There are others, like the dipsomaniacs who only do so at varying intervals. The best way to distinguish between the alcoholic and the social drinker is to enter a restaurant with a bar. The social drinkers are seated at tables. They are taking food with their drinks, and they are generally with members of their families and the groups are apt to be mixed ones. But the alcoholics or the future alcoholics are standing at the bar. Their associates are generally of the same sex. They are restless. They do not care for food or for beer or wine. They want scotch or rye and soda. They are not content with one or two. These only increase their restlessness and they seek to allay it with further indulgence. Their conversation is

less enlightening than that of those at the tables. As soon as the social drinker ceases to want food with his drinks as soon as he is restless, irritable, and impatient without them or ill at ease and as soon as he prefers the bar to the table in the restaurant, he is a candidate for the alcoholic class.

Much discussion has arisen of late and many articles have been written about alcoholism as a problem of allergy. It is true that prolonged indulgence leads to increased susceptibility to its effects both psychological and physiological. One psychopathic "problem drinker" told me that the next day after two glasses of beer, he felt as bad as he did formerly when his alcoholic indulgence was prolonged and excessive. Most alcoholics have enlarged livers. Alcohol certainly damages this detoxicating organ and allows toxic substances to accumulate in the body. I am inclined to believe that it is these toxic substances which produce this increased susceptibility rather than the alcohol itself. I doubt if this is an allergic reaction. Certainly the symptoms are different. Many of these patients have secondary anemias and are vastly benefited by injections of liver extract and the oral administration of iron compounds. Here the problem seems to be an indirect one as in the case of alcoholic neuritis. The neuritis is not due to the direct effects of the alcohol. The alcohol affects the patient's appetite for solid food. Consequently his vitamin intake is low and the neuritis arises from lack of these necessary substances especially vitamin B. Treatment therefore consists in getting solid food rich in vitamin content into these patients as soon as possible. At first they should receive intramuscular injections of vitamin B. In the acutely toxic cases, where vomiting and diarrhea are often serious problems, immediate injections of intravenous fifty per cent glucose are advisable. This also helps to relieve intracranial pressure through the osmotic effects of the hypertonic solution. As a rule lumbar punctures are not indicated unless convulsions have occurred. Later weaker glucose solutions may be given but we should not rely upon them and they should be supplemented by and replaced as soon as possible by tube feedings if the patient is unable or unwilling

to eat. The introduction of fluids into the body through the stomach tube is a more natural method than by the intravenous route and far more profitable in obtaining the desired effects. Intravenous medication should be an emergency procedure.

As regards sedative or narcotic medication for the acutely disturbed or depressed alcoholics, the less that is given of this medication the better. The fact that a patient is delirious, confused, and disoriented and that he has a resultant memory defect indicates that he is toxic and suffering from an organic reaction. Sedative and narcotic medications only increase the toxic factors already at work in his system. Sometimes it is imperative that they be given, especially in a patient's home, but such a patient should be taken to a hospital as soon as possible. There his excitement and restlessness can often be ameliorated by prolonged continuous baths at body temperature. That is if he is in a mental hospital, where such baths are available. Warm or cold packs are generally dangerous in these physically reduced, dehydrated patients. Often they continue overactive, are unable to sleep, and consume what little reserve energy they have left in constant excitement. The best sedative for these patients is paraldehyde, preferably by mouth, with a nasal tube if necessary. In exceptional cases the paraldehyde may be given per rectum or intravenously, but I have found such occasions rare. There appear to be less residual toxic effects from this drug than any of the others. In milder cases, sodium amytal may be used to promote sleep for two or three nights and it may be followed by a night or two of luminal. But in all of these toxic alcoholic cases, if sufficient fluids and solid foods are given, and proper elimination is obtained, all such drug medication should not be necessary after five or six days and during this time the dosage should be rapidly decreased.

I have already indicated that alcoholism is a far more deeply seated problem than a mere matter of will. Those inner necessities and fears I have spoken of are not easily controlled by a superficial insight. If alcoholism were a matter of heredity, it would be an even greater problem than it is at present for the majority of families have their alcoholic

members. Alcoholics are begotten of abstinent as well as convivial fathers. The environmental factors I shall illustrate in my cases. I shall also indicate how the problem is more a psychological than a physical one. Certainly physical factors alone never started anyone drinking. In the case material, I wish also to indicate how the sexual life of these individuals is far from satisfactory, but it is not a matter of homosexuality in the sense in which one usually conceives of it. These unfortunates are not psychosexually developed to the point from which they can form a satisfactory affective rapport with even their own sex, let alone the opposite one. Their own interests come first. They are so fixed upon their own bodies and the gratifications of them that they have no feelings left to bestow upon others. We therefore call them narcissists or self-lovers. They are generally promiscuous but only to gratify their sexual urges in a masturbatory manner, never to give love or satisfaction to others.

I wish to present two cases that were admitted to the New York Hospital, Westchester Division (Bloomingdale). The first is for the purpose of illustrating the psychopathic type, that is the person who has always been inadequate from birth and thus displayed definite personality deviations before he ever drank. This is a case history of delirium tremens engrafted upon such a personality and it will stress the physical factors under treatment.

CASE 1 An advertising solicitor of thirty was admitted to the hospital following a short illness with influenza and excessive alcoholic indulgence. As a result he became fearful, suspicious, had distinct auditory and visual hallucinations, and finally a generalized convulsion a few hours before admission.

The family stock was German and Dutch. His capable, aggressive father died suddenly at sixty of coronary thrombosis. An uncle "drank himself to death." The mother is a self-centered, extravagant woman in her seventies. Domineering, she expects her own way and is prevalently dissatisfied.

As the baby of the family, with two siblings at least ten years his senior, the patient was the center of their attention and was consequently overindulged. His mother evidenced her over-solicitousness by

dressing him in "sissy" clothes. As his father's business necessitated his traveling, the patient was put in boarding schools, where he seldom saw his parents and felt neglected.

He lived for a short time in his eleventh year with his sister. She was annoyed by the increased responsibility. The patient felt he was unwanted by his whole family. He developed marked feelings of inadequacy. He attempted to compensate for them by obtaining the attention and approval of others with dramatized stories of his accomplishments. He adopted a rebellious attitude towards authority and had little regard for social conventions. In his constant desire for approval he adopted any method which would achieve this immediate end without deliberating over the consequences.

At the ages of sixteen and seventeen, in reaction to disappointment in his attempts to excel in athletics as his older brother had done and thus win the approval of his schoolmates, he ran away to become a common seaman. On the second trip several of the crew were ex-convicts and he became involved in a brawl in which he shot a member of this crew. This aggressive act was hushed up by his father.

At nineteen he entered college. He neglected his studies and began to drink to excess. He was asked to leave after his second year. Until he met his wife at twenty-one he was dependent on his domineering mother. His wife was an aggressive, masculine woman. His dependence was directed to her with a resulting antagonism to any further maternal dominations.

Even in his employment he rebelled against the requests of his superiors. He became a braggart about his past. While he was passive and cowardly when in argument he uttered bold threats when away from those with whom he disagreed. While he was working as an advertising solicitor for his hometown newspaper he plagiarized his material, passed it off as his own copy, and faked his ads to keep up to his quota. He lied about easily checked up facts. When confronted with the truth he evaded with prevarications.

When the pressure of his duties increased and he was involved in a family conflict because of his unscrupulous methods he again resorted to uncontrolled drinking. Within a few months he was consuming from one pint to one quart of whiskey daily. He spaced his drinking through the day so that he did not become noticeably intoxicated. With this extra fluid intake his meals became irregular and he ate

little. He was able to hide his excessive drinking from his wife, but he was warned several times at the office as the result of having the odor of liquor on his breath. Two months later, he became ill with influenza. As a therapeutic measure he imbibed a pint of whiskey in a few minutes time. The next day he ate poorly. Three days later, the influenza symptoms persisted. He began to vomit frequently and showed increasing signs of dehydration and toxicity. The next evening he became hypersensitive to noises. The clock's ticking disturbed him. He thought he heard people whispering about him. Shadows on the window shade were misinterpreted as those of foes waiting to kill him. His increasing agitation led to his telephoning for police protection. Two hypodermics of morphine did not produce quiet. Early the following morning he was suddenly overheard to let out a cry. A generalized clonic convulsion followed. It was of three minutes duration. He was promptly admitted to the hospital.

His temperature was 100.8° F, pulse 120, and respirations twenty. Blood pressure was 135/110. There was a generalized increase of muscular tone with fibrillary twitchings of the muscles of the tongue, face and chest. There were superficial ulcerations on either side of the tongue. The physical examination was otherwise negative except for an increased right patellar reflex. The leukocyte count was 16,400, ninety two per cent were polymorphonuclears. Blood chemistry, cytology, and serology studies were otherwise negative. The urinalysis revealed seventy five Mg % of albumin.

The mental status disclosed a suspicious and confused patient who was preoccupied with definite hallucinations in both the auditory and visual fields. Visual hallucinations were easily elicited by pressing on his eyes. They caused him to see people in the air. He read a long story from the blank wall when asked to read what was there. Miniature animals in bright colors were seen by him playing on the floor. His level of attention showed wide variations. In response to the stimulation of shaking or loud talking his attention could be attracted for brief periods. He would cooperate for spoken requests but he would soon become preoccupied again with his hallucinations and lose contact.

In view of the history of a generalized convulsion, the physical findings of fibrillary muscular twitchings and a high diastolic but a low pulse pressure, a high intracranial pressure was suspected. He was given immediately an intravenous injection

of fifty cc of fifty per cent glucose. This was repeated a few hours later. Shortly after the first, he became more relaxed, was not so suspicious, and was able to maintain better contact with his surroundings. Brewer's yeast and sweetened fluids of high caloric value were also administered.

During the night his hallucinations kept him awake, but did not produce restlessness. Early in the morning he fell into deep slumber and awoke at noon, relaxed, refreshed, and showing no delirious symptoms but he was amnesic for details of the day before. His pulse was 100, his blood pressure 140/92. After two days rest in bed, his program became more active. In a week he was taking light exercise in the gymnasium and was able to concentrate on simple occupational procedures. He gained weight rapidly and was soon given a full schedule of activity.

Alcoholic patients generally enter the hospital with impaired muscular tone. They coordinate poorly. Their reaction time is slower than when freed from all alcoholic influences. Consequently they must be ushered into athletic activities slowly and avoid any bodily contact for many weeks, or numerous minor or possibly severe physical injuries will result. Digital fractures are frequent.

In interviews this patient was evasive at first. He minimized the amount of his drinking and gave an ameliorated account of his past experiences. When confronted with his own contradictions about details, he became indignant and angry. He would soon cool off and seek to ingratiate himself with his physician. The next day he would volunteer, "Doctor, I can see that what happened the other day was just another example of my being unable to face unpleasant situations." Later he accepted his hospitalization with better grace and discussed his problems with greater ease. He decided to give up his former occupation with its associated temptation to drink. He was finally allowed week-end visits home. He was reported by relatives and friends to "look and act better than he has for years."

This patient left the hospital, did well for a time, but started drinking again when he could not obtain a job and family friction arose. He became jittery, fearful, and tremulous. He returned to the hospital of his own accord about a year later on the verge of delirium tremens. This psychosis was probably averted by intravenous injection of fifty per cent glucose, muscular injections of crystalline vitamin B, forced fluids, and a high caloric and vitamin diet. He is soon to leave the hospital to take up

short story and publicity writing. He appreciates the fact he requires further guidance and advice when he "feels low" as he expresses it. He will continue to keep in touch with his physician and have interviews with him when such occasions arise.

The following case is presented to show the development of the neurotic type of personality that is predisposed to alcoholic overindulgence and how the resultant personality problems are susceptible to some degree of amelioration through psychiatric therapy and guidance. Every case of alcoholism presents certain physical factors that require careful medical attention, but here the psychological situation was the one of primary importance.

CASE 2 A lawyer, aged forty-one, of Irish Catholic stock, came to the hospital with a history of heavy drinking for sixteen years. The past six years he had overindulged to the extent that he was repeatedly neglecting his business, his obligations and had reached the point where he was unable to help himself, but appreciated the fact that he needed assistance. He signed his own petition for inebriate commitment.

The patient's mother died when he was five, but lived long enough for him to develop a marked attachment to her. He slept with her. During her terminal illness, he shared her bed and the privileges of a sick person.

His father was severe and strict. He gave the patient a severe beating the only time he was truant from school. The patient was fond of his stepmother and only remained at home as long as he did because of her. At times he felt deeply towards members of his family, but because of the situation stated, strove not to show his feelings.

As a youth he was socially minded. He enjoyed participation in active group games like baseball and football. He adjusted well to his teachers and schoolmates in public school.

He indulged in masturbation from about the age of twelve until late in his teens, but without any conscious conflict. His only sexual instruction was from older boys. At fifteen, a mild attack of scarlet fever did not prevent his maturing. He started to shave and his voice changed. From sixteen on, he had occasional heterosexual relations with prostitutes.

He graduated from high school at seventeen. He was a super-average student, excelling in mathematics. He was indus-

trious, made the most of his opportunities, and had little time for play or social activities. From the age of thirteen he had worked summer vacations and week-ends. He was ambitious, energetic, and well liked by his employers and fellow employees. He was serious conscientious, but fairly cheerful.

During adolescence, from fifteen to twenty, he was rather stocky but not overweight. For a time he was troubled with pains in his arms and legs but they did not prevent his playing professional football week-ends. They may have been associated with an abscessed tooth, complicated by otitis media which ruptured spontaneously.

At the age of twenty, he entered a Chicago night law school, from which his brother had just graduated. After three years of study, he graduated with an excellent record in spite of the fact he worked days. His marks were higher than his brother's.

At twenty three, he entered legal practice with the brother in Chicago. Although better intellectually endowed than the brother, the patient was dependent upon him for decisions. He had been indecisive since childhood in spite of his industrious application and had been deliberate in his judgments. Aside from his professional work he was a poor manager. He now showed an increasing tendency to avoid responsibility.

At twenty five, in 1918 he entered the Navy for the duration of the war and served as an Ensign on several ships along the Atlantic seaboard. He started to drink heavily for the first time. He returned at twenty six to his law practice with his brother, but continued his alcoholic indulgence—chiefly whiskey. A definite change in his personality became gradually more apparent. Where formerly he was active and industrious, he now became inactive, silent, reserved, reticent and aloof. His range of interests narrowed. His brother replaced his father as a representative of authority and discipline. He disliked the brother but became increasingly more dependent on him. Nevertheless his brother admitted the patient contributed the brains to the organization. To quote the latter, "He would tell me what to do and then I would have to tell him before he would do it. He had the mind of a woman in a man's body." Once a decision was made by the brother and a course mapped out to pursue, the patient showed bulldog tenacity.

He showed relatively little interest in women. He was shy and ill-at-ease in the

presence of those of his own social level. But at twenty-eight he started going with a much younger woman of different religious faith, a Protestant. This was contrary to the wishes of his brother. He was irritable and stubborn when this woman tried to stop his drinking. He was uncertain with regard to marriage and really never formally proposed.

He married this young lady at twenty-nine. The night after the wedding, he became intoxicated on wine and was disagreeable and careless in his speech. He continued to indulge excessively in alcohol. This rendered him increasingly more argumentative, hypercritical and irresponsible. He would drink during the day with his associates at the office come home drunk fall asleep and on awakening would rave loudly and use profane language. He was careless about appointments and would often come home late when there were guests for dinner.

Although his sexual demands were small he had never been jealous nor accused his wife of infidelity. At times he had been impotent when drinking heavily, but his erotic urge had been greater. He had suggested cunnilingus and fellatio to his wife. He had always had difficulty with ejaculatio precocx. At times his intoxication released a sadistic tendency.

His only child a son was born a year after his marriage. Although a Catholic, he has had only a mild desire for children. Both he and his wife have used contraceptive measures. He would push his wife away when she was at all demonstrative and showed little more affection towards his son.

He came to New York at thirty two with his brother. There his practice was more successful—one year he made \$18,000 but his circle of friends and his social contacts were limited by his continued alcoholism. He had a good tolerance at first. He went on two or three sprees a week consuming one to two quarts of liquor at a time, but this tolerance rapidly diminished. At times he worked very diligently, but used these exertions as excuses for subsequent over-indulgence. He began spending much of his time in Turkish baths and speakeasies. He wrote checks for large sums while intoxicated.

When thirty-eight he showed no evidence of deterioration during a month's residence in a private hospital but following this only a few drinks would 'set him to raving.'

A year before his admission here he had periods of discouragement when he spoke of suicide. Six months before admission, while intoxicated he sat in his

car with the engine running and the garage doors closed, but he was promptly discovered by his wife, and there were no ill effects

Two months before admission, while drinking excessively, he fell into a bathtub, striking his head, but did not lose consciousness although he had severe frontal headaches afterwards

When he entered this hospital, his tolerance had diminished to where the consumption of less than half a pint of whiskey affected him greatly. For several months he had had pains in his extremities, but there was no history of delirious periods or hallucinations. He had been consistently overweight for years

He was calm, composed, quiet, but slow of response. He was not depressed, but spoke of feeling "nervous and frustrated." He told of having been unhappy in his law partnership with his older brother and of having resorted to alcohol to ease his difficulties. This gave him some relief from the nervousness resulting from the pressure of his work. His suicidal attempt had been made at a time when he "felt licked." At times, when drinking heavily, his surroundings had seemed "hazy and unreal" but he did not recall any hallucinatory experiences. His sensorium was clear, his general knowledge adequate, his insight and judgment were sufficient for him to accept advice and be amenable to the same

In many respects this patient presented the typical alcoholic type of personality. He had a marked mother attachment which was carried over to his stepmother and a rebellious attitude towards a more stable father and later towards a successful and domineering brother, a father surrogate. He had a marked feeling of inferiority. He became restless, tense, and ill-at-ease under consecutive mental effort, especially when under competition with others in a law office. Alcohol lessened the intensity of this strain. While he disliked to be dependent on his brother, he did not feel secure enough to break away and start an independent law practice although he often contemplated it.

Like the typical alcoholic, he made an unsatisfactory marital adjustment and displayed a limited and disordered sexual drive. This accentuated his feelings of inferiority and increased his alcoholic indulgence. He continued his alcoholism in spite of all attempts to make him aware of the disastrous consequences. Like all alcoholics his tolerance gradually diminished and he became increasingly susceptible to diminishing amounts

His hospital residence brought out the

fact that he was especially fearful of any assault on his personal integrity and that he built up an insecure defense against the same. He could not accept any suggestion that he was inferior in any way. He resisted suggestions that he follow a regular routine and be subject to the rules laid down by the occupation and physical recreation departments. He was continually being irritated by and was unjustly critical of the nursing personnel for the same reason. It was always their fault. They were picking on him. They were the ones who misunderstood. He found it hard to accept these facts as evidences of his underlying sensitiveness and feeling of insecurity

He was skeptical of the hospital routine and became restive having to conform to a system from which he could not escape. He admitted if he felt outside the way he did here, he would take a drink

He was often hypochondriacal. When he became emotionally upset, he attributed it to physical disturbances. He would have a headache, his stomach would become upset, he would have alternating diarrhea and constipation, he would become unduly fatigued. He would anticipate a cold, and exclaim, "There must be something wrong with me physically"

In spite of all these limitations, our patient had certain personality assets which made him different from the usual alcoholic. Successful therapy lay in ascertaining these assets and making the most of them. He was more serious-minded than the typical alcoholic. He had been a student above the average, had made the most of his opportunities in his youth, had been a successful lawyer and been the brains of the partnership with his brother. He spent his spare time in the hospital in reading books, law and legal magazines, and trying to prepare himself for a return to his practice

He remained in the hospital longer than the usual alcoholic, eleven months of his year's commitment period. He never brought strong pressure to bear on his leaving. He learned during his hospital residence that his hypochondriacal symptoms were evidences of emotional disturbances and that when he was irritated by others, it was evidence of a feeling of insecurity within himself

He accepted advice and interpretations of his difficulties from his hospital physician without argument and did not display the cynical, supercilious attitude of the usual alcoholic. He came to realize the loyalty of his wife to him and to admit he had been wrong in his attitude towards her. He even became more reasonable in his attitude

towards his brother and was content to return to his partnership with him.

We do not claim we cured this patient of his alcoholism but we put him in a much more stable emotional state. We enabled him to acquire some insight into his personality limitations and to attribute his shortcomings to others much less than he had done formerly. We also enabled him to develop golf as a hobby by which he could lessen his tension and give expression to his energies when he sought diversion from legal practice. We reduced his surplus weight, increased the tone of his muscles and put him in good condition.

He has drunk since he has left the hospital. He has sought the advice of physicians and has not always felt secure but he has been able to carry on his law practice with his brother successfully. We feel we have contributed in some small way at least to this success.

These cases were selected not as examples of therapeutic successes but because they best illustrate the detailed problems involved. Others where the prognosis was better doubtless had as many underlying difficulties but they handled them better and consequently they were not so apparent for means of presentation.

In closing I want to stress the need of closer cooperation between the physician in general medicine or surgery and the psychiatrist. It is the duty of the former to recognize these cases in their incipency. At such a time, if a neutral attitude is assumed, one neither of condemnation nor one of undue sympathetic acquiescence they may not need to come to a hospital. One may not expect them to stop drinking at once but they can be helped to diminish their indulgence and a few may stop altogether. But many will persist because of psychological factors, like those enumerated above. Such cases should be persuaded to have hospital care under psychiatric guidance. But it is important to point out to these patients that an emotional education takes time just as much as an intellectual one. Little can be accomplished unless they consent to go voluntarily and will sign their own inebriate

petition for six months or a year. One must have their cooperation at least in part. Unless they are willing to agree to a specified time, the old restlessness and discontent that will inevitably arise will cause them to leave too soon to escape rather than face what needs to be understood and changed.

It is the duty of the psychiatrist to help them to have a better understanding of their weaknesses and inadequacies, to meet them without becoming emotionally perturbed and to compensate for them with their personality assets which we all have to varying degrees. But the problem is not over when they have left the hospital. They require further help and guidance for a prolonged period. Many emotional problems will arise for which they will need a solution through someone else. Some may be sufficiently near their former hospital residence so that they may return for this, but for most this will be difficult for economic and geographical reasons. They should all be advised to return to the physicians who referred them to the hospital if any physical difficulty arises. In regard to their mental problems many of them can be relieved by their referring physicians, by the latter being simply interested and passively receptive listeners. But remember that this takes time and availability in time of need. The referring physician should also be advised when they leave the hospital and given a program of their needs, and of the routine which they should follow. He should also be informed of psychological danger signals that may arise and how to handle what they indicate. In cases in which the physician who sent them to the hospital does not wish this responsibility or lacks the time for it the patient should be referred to some nearby psychiatrist or psychiatric clinic. But keep in mind that these patients will doubtless always need help at varying times and try to pierce through the defenses of their inferiority feelings. Remember they are the people who always chip the cubes of truth so they will roll more easily

The Old Clinician says "It is as futile for a physician to attempt to base a diagnosis on a single symptom as for an archi-

tect to attempt to determine the appearance of a house by seeing one of the stones which has been removed from its walls"—Hare

APPLICATION OF CONVULSIVE THERAPY IN SCHIZOPHRENIA

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In 1935 Meduna¹ published his first report on Convulsive Therapy in Schizophrenia, in which he calls attention to successful treatment of this disease with camphor and metrazol. In a later publication² he reports on seventy-four cases of whom thirty-nine per cent were cured, fifteen per cent improved, and forty-six per cent showed no change. The author of these reports raises many interesting questions concerning the theoretic basis of this treatment. It is, however, not our purpose in this preliminary report to deal with these theoretical aspects. We wish merely to present a brief account of our experience thus far at Bellevue Hospital with this mode of therapy.

The report is based on observations of fifteen cases extending over a period of two and a half months. The cases chosen were observed by several members of our staff and the diagnosis of schizophrenia in each case was agreed upon. This we considered the best method of selection in order to eliminate cases with questionable diagnosis.

Method

Each case was submitted to a careful examination. Patients presenting evidence of chronic organic disease were excluded. Each patient was allowed to remain in a ward best suited for his psychiatric state, thus eliminating the practical difficulties associated with the setting up of a special ward and staff. After adequate observation, patients are started on sodium bicarbonate, gr 45-90 daily, given orally. Sedation is omitted for several days prior to and during the course of treatment. Angyal and Gyárfás³ emphasized the importance of excluding sedation during convulsive therapy. Friedman⁴ stresses the value of alkalosis as a predisposing factor in convulsions.

Our patients were given an average of

two convulsions weekly except for one case of acute catatonic excitement who is being treated with three seizures weekly. This procedure was decided upon because of the patient's marked clinical improvement following a seizure. In a general way we follow Meduna's method since we feel that there is not enough evidence clinically to warrant radical changes and modifications. We limit ourselves to the use of a ten per cent aqueous metrazol solution as suggested by Meduna.⁵ Injections are given intravenously in doses varying from 4½ to fifteen gr. The patient receives no breakfast on the day of treatment, the injections being given during morning hours. We begin with the smaller dose and increase this only when it fails to provoke a grand mal type of convulsion. Two or three days of rest are allowed between seizures. The precautions used are those usually employed with a patient in an epileptic seizure. We want to emphasize the importance of the rate of injection. As pointed out by Meduna, Muller,⁶ Angyal and Gyárfás,³ and Harris and Blalock,⁷ the injection must be given directly into the vein and as rapidly as possible. We find that unless the entire dose is administered rapidly no convulsion will follow. In such cases we usually repeat the same dose on the following day. It seems also possible to repeat the injection within one-half hour without producing any unfavorable effects. Our patients show no unusual amount of fear for the treatment. We find on the contrary that patients form a strong attachment for the persons about them during the postconvulsive confusional state and maintain this attachment as improvement continues. The confusion following seizures is in our cases usually short and in no case did it last beyond one hour. Retching and vomiting occur at times. A transient period of excitement with manifestations of paranoid trends

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have been observed. Upon recovery from the state of confusion the patient is allowed the usual ward privileges and activities. He is at no time treated as a 'special' patient.

We are of the opinion that the effects of the treatment are of organic type, however after each confusional state the patients show marked attachment to those about them. The emotional contacts established in this period are valuable for the adaptation of the patient. We offer no opinions regarding the necessity of elaborate psychotherapeutic measures in this treatment, however the state of the patient after the seizure makes it imperative that some attention be given to help him gain insight into his psychosis and to form attachments to other human beings.

In our group of fifteen cases are included six previously treated with insulin with no effect. The other nine had no previous therapy. Duration of symptoms in the latter group varies from several weeks to six years. Treatment has been completed in five cases all of whom are at home. Of these, one is an insulin treated case of moderately long duration who showed no change under insulin and some improvement after seven metrazol seizures. He has been at home for over a month and the father reports that the patient is much improved, does useful work about the house, and is considered to be much better than at any time during visits home in the course of the insulin treatment. The four cases with no previous treatment are all recovered and were discharged after a series of six to eight seizures. Of the ten cases under treatment, five are insulin treated negative cases, and as yet show no change. The remaining five include two of three years and one of six years' duration. Two of these five show definite improvement and one catatonic type of schizophrenia, shows slight improvement after three seizures.

Case Reports

CASE 1 J M twenty five, male married two children, born in Scotland eight years in America. Previous history is negative for nervous or mental disease. Was a friendly type of person, and liked associations. Two months prior to admission he began to work very hard experienced diffi-

culties with his store manager. At this time his wife gave birth to the second child. The patient expressed great worries about his financial affairs. Began to complain of having a 'bad disease' and appeared somewhat depressed. At time of admission, August 21, 1937, he was tense, bewildered, delusional. He said 'I'm afraid somebody will die, God is trying to kill me. He talks to me and says 'There he is'—that means God is waiting for me. After admission he became very disturbed no contact could be made with him. He defecated on the floor and ate the feces on one occasion. When questioned at this time about this behavior patient replied 'I thought it would help my people'. At times he was mute, and showed severe catalepsy.

Treatment was started August 28 with six grains of metrazol and he responded with a generalized seizure. This patient showed improvement after four seizures and was completely well after eight. He showed complete objective insight into his psychosis. He knew that he had been mentally ill and that he had delusions. No insight was gained concerning the deeper meaning of his psychosis. He was friendly and outgoing and showed a close attachment to the physicians who treated him.

CASE 2. A single male age twenty-six, born in Russia has been in United States twenty five years. Past history essentially negative for physical and mental diseases. Was apparently a normal boy and graduated from high school at the age of nineteen. About ten months prior to admission to the hospital the patient suddenly disappeared and remained away for a week. Upon returning he stated that he had been to Philadelphia to look for employment. It was noted at this time that he was decidedly more unfriendly and showed a marked reticence in answering questions put to him. He became gradually worse, and about three months later he began to be suspicious of everyone around him. He stated at this time that there was something going on in the house and he was being kept in ignorance. He stopped going with his friends, spending most of his time in the house listening to the radio working cross word puzzles and reading newspapers. He never confided in any member of the family and generally spoke little or not at all. At the time of admission to the hospital he was found to be dull and apathetic. He was evasive and made poor contact. As the examination proceeded he became more relaxed and freely admitted auditory hallucinations. He stated 'I do hear some voices. It's been going on for two years.

They help me, tell me to do things, to go with a girl, to have intercourse with her. I can't make out all the conversation. I can't be sure it's all true, what they say. It appears to me that everybody knows me—when I walk on the street, or in a train or car, I can see that they recognize me in some form or another."

It was decided to treat this patient with metrazol. Treatment was started on September 4, 1937 with gr iv ss. There was no reaction to this amount and the dosage was therefore increased gradually until a seizure was obtained (gr ix). Thus far, the patient has had eight seizures, and has shown some improvement. He is decidedly more affable and friendly, offers no resistance to the treatment, and appears to be making a good adjustment on the ward. Treatment is still being continued.

Summary and Conclusions

Fifteen cases of schizophrenia treated with induced convulsions were observed. The method of treatment is outlined and is the method first employed by Meduna. Brief mention is made of some manifestations in the course of treatment. The technic is relatively simple but not free of

danger. It does not require any complicated therapeutic set-ups. Psychologic and physiologic studies are being carried out and will be reported at a later date.

Treatment has been completed in five cases all of whom are at home, of these four are recovered and one improved. Out of nine cases with no previous treatment four have recovered and three, still under treatment, show improvement. The former four are all of acute onset, of the latter three, one is of three years' duration. We are of the opinion that the treatment deserves a fair trial with a larger group of cases.

104 E 40 St
200 E. 26 St
160 E 48 St

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PHYSICIANS SIGNATURES FOR AFFIDAVITS FOR NURSES

Miss Stella M. Hawkins, of the New York Board of Nurse Examiners, has requested that practical nurses seeking licenses under the new Nurse Practice Act ask permission of physicians before sending in physician's name as references with their application. Otherwise unnecessary correspondence may result from the board's querying the physicians.

It is also suggested that all such applicants carry the responsibility for the notary's fees for witnessing the physicians' signatures.

In section 1379 the law reads in part as to the license for practical nurse: "Practice must be verified by affidavits of two physicians, members of a county medical society, that the applicant has satisfactorily performed the duties of a nurse."

Copies of the new Nurse Practice Act, which became effective July 1 of this year and whose penalties are to be enforceable July 1, 1940, will be sent to physicians upon request to the Department of Education, Capitol Building, Albany.

WHERE THE DEPRESSION IS UNKNOWN

Four million dollars is spent at the soda fountain every day by the American public—an amount equal to eighty per cent of Japan's daily expense in waging its undeclared war against China, according to figures compiled by the Liquid Carbonic Corporation.

International economists declare that the Sino-Japanese conflict is costing the island empire \$5,000,000 a day. "Liquid" has estimated that Americans spend eighty per cent of this amount on ice cream, fountain beverages, and sandwiches purchased at soda fountains.

A recent survey cited by the Liquid Carbonic Corporation shows that seven of every ten persons entering a retail drug store patronize the fountain, and that this department takes in thirty-one cents of every dollar spent in the establishment. It has been proved that the soda fountain is less affected by "depression" buying than any other section of a retail drug store.

Are some of these free-spenders the same people who "can't afford to pay the doctor?"

THE PROGRESSION OF DEFORMITIES

With Special Reference to Chronic Arthritis

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Since deformities are generally regarded as congenital anomalies, residuals of infantile paralysis, or the results of infectious bone diseases, they are considered as belonging entirely to the domain of orthopedic surgery. Unfortunately, the subject cannot be so easily dismissed. One of the chief etiological factors in the development of deformities is chronic arthritis. For that reason, the entire subject of skeletal distortions reverts in one of its most stubborn forms to the general practitioner and the specialist in internal medicine who are compelled to meet it in every arthritic they treat. This presentation of one phase of the deformity problem—analyzing the progressive steps through which a simple distortion advances to a complex deformity—is made with the hope of assisting those physicians who have not had the opportunity to give adequate thought to the development of deformities.

The onset of deformities is insidious; their progress slow and even under ideal conditions of hospital care with the direct supervision of competent orthopedic surgeons, deformities in severe cases are almost unpreventable. Therefore, how much more important it is for the family doctor, who treats arthritis in the home, to realize the problem before him and to have a thorough knowledge of the forces of nature constantly striving to make a cripple of his patient.* With this in mind it is readily seen that the deformity problem is not the sole property of the orthopedist but the burden of every doctor who treats a patient suffering with arthritis.

*It is essential to differentiate between the patient who has good function with an ankylosed, or reconstructed joint and the patient who may have some motion in all joints but still is so deformed as to be completely useless to himself.

Table I outlines the subject and is intended to demonstrate the complex and progressive nature of deformities in all joints. It will be noted that there is a primary or first distortion which is followed by additional distortions and that these additions proceed by a definite rule of development which it seems indicated to term 'The Progression of Deformities'. The accumulation of these individual distortions produces the final complex deformity.

Fig. A-1 to A-3 show an actual arthritic who has a flexion deformity of the right knee of long duration. An effort is made to analyze the individual components comprising the complete deformity.

The main portion of this paper consists of illustrations of a *normal* young man who has complete and free motion in all his joints. He is first shown in his usual posture then posed in a series of positions beginning with a simple distortion and passing through all the stages of increasing deformity as they actually occur in unprotected arthritides during the development of complete complex and serious deformities. Maximum attention is given to flexion of the knee because it is so frequently encountered. The lower extremities are employed for demonstration since their size permits them to be most easily visualized and also a distorted lower extremity affects both the opposite extremity and the trunk it supports. Scoliosis is emphasized not only because it is a serious deformity which in severe arthritis rarely yields to any treatment but also it is ideally adapted to such a presentation. Some confreres, who have been asked to criticize this paper, have observed that many scoliotics lead active and useful lives while deformities in the hands and feet are infinitely more disabling. That is true and

TABLE I—THE COMMON DEFORMITIES

SPINE	Flexion with rotation
SHOULDERS	Adduction with internal rotation
ELBOWS	Flexion (30–40°) with pronation
WRISTS	Flexion with ulnar deviation
FINGERS	Flexion
	(a) Ulnar deviation
	(b) Atypical extension
HIPS	Flexion and adduction—precipitating
	(a) Equinus, flexion of knee, knock knee and flat foot
	(b) Tilting pelvis
	(c) Increased lumbar lordosis
KNEES	Flexion
	(a) Precipitating equinus which encourages abduction and external rotation of hip, followed by flat foot, knock knee and finally tilting of pelvis to shortened side
	(b) Posterior dislocation of tibia
FEET	Equino-Valgus
	(a) Midtarsal pronation
	(b) Depressed anterior arch
	(c) Hammer toes
JAW	Closed

one must hasten to state that essentially the same progression occurs in deformities of the hands and feet, but, because of the multiple small joints involved in those members it is practically impossible to demonstrate them in this type of presentation and for the same reason much more tedious for the reader to follow. It is sufficient to say that the crippled and useless hand of an arthritic started as a simple distortion of the wrist and fingers and passed through a series of additional distortions caused by mus-

cular forces and anatomical compensations until it reached its ultimate deformed state.

To those who give attention to the photographs the thought is likely to arise that they have seen arthritics with flexed knees and flexion adduction deformities of the hips who do not show the complicated deformities suggested here, and also that many advancing deformities do not follow the rules of progress indicated in this paper. For these reasons the three final photographs (Fig E-1 to E-3) have been used, demonstrating a patient with flexion and adduction of the right hip due to a destructive arthritis, who *has compensated* by abducting his normal hip and tilting his pelvis to the left. The answer for this apparent exception to the rule is that this man led an active athletic life prior to his illness and his muscles and ligaments are still sufficiently strong to sustain his weight in the position he has assumed. However, as he becomes older and his soft tissues less competent to sustain the strain put on them, he will undoubtedly "break down" and show the typical deformities of the person suffering from a flexion and adduction deformity of one hip.

With this introduction it is indicated to pass to the illustrations which are the important part of the presentation, keeping in mind that they are the *customary* findings in an arthritic who has been treated without thorough knowledge and

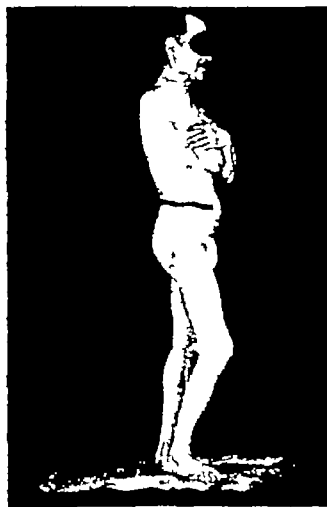


Fig A-1 Fixed flexion of knee.

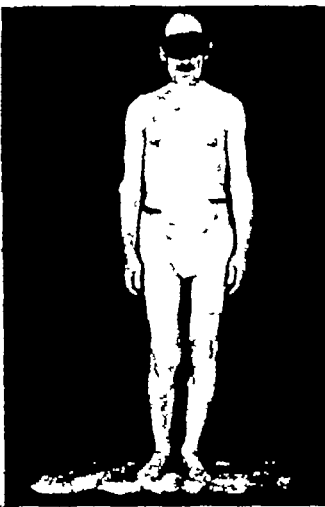


Fig A-2 Multiple deformities resulting from knee flexion

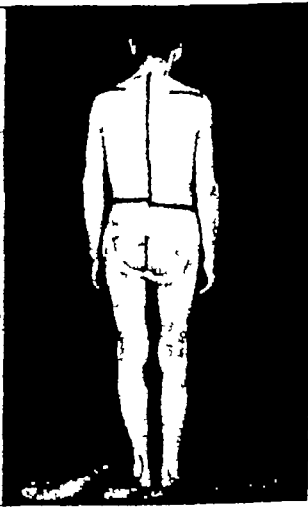


Fig A-3 Resulting distortions in trunk

understanding of the principles underlying the deformity problem.

Actual fixed flexion of right knee

Fig A-1 is an arthritic patient who has had a fixed flexion deformity of the right knee for many years

Fig A-2 depicts multiple deformities resulting from knee flexion: an anterior view showing knee flexion, valgus and pronation of the foot, right knock knee and tilting of the pelvis to the shortened side.

Resulting distortions in the trunk are shown in Fig A-3, a posterior view showing the same as in Fig A-2. In addition, note the lateral deviation of the spine, somewhat obscured by the accompanying rotation of the pelvis and back.

Progression of deformities in fixed flexion of the knee

Fig B-1 demonstrates the subject's usual posture, while in Fig B-2, the subject has assumed a position of flexion of the knee which is to be considered as a knee ankylosed in flexion. Foot has remained in the neutral position. The flexed knee causes a shortening of the extremity, which *shortening* is the important factor to be considered in this group of illustrations (Fig B-1 to B-8).

Fig B-3 is the same as Fig B-2, except that the foot has been put into equinus in order to lengthen the extremity and compensate for the shortening caused by the flexed knee. The position of equinus requires the patient to stand on a small surface (the ball of the foot) providing an unstable weight-bearing base. Instability in bearing weight is the next important factor in this sequence.

In Fig B-4, the flexed knee and equinus are maintained. This anterior view demonstrates that instability in weight bearing causes the subject to abduct his hip to provide a broader base on which to stand.

External rotation further stabilizes the base as shown in Fig B-5. The flexed knee, equinus and abduction persist. External rotation of the hip is added to further broaden the base and increase stability in weight-bearing. Level plane of the iliac crests and shoulders has been maintained by the equinus compensating for the shortening due to knee flexion.

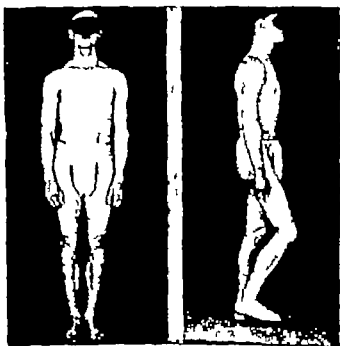


Fig B-1 Usual posture. Fig B-2 Flexion of knee shortens extremity.

In the foregoing illustrations, equinus has been maintained to demonstrate the stages in this sequence. A patient with a flexed knee would not only abduct and externally rotate his hip but also would put his entire foot on the ground to provide stability. Such position is illustrated in Fig B-6. Since the equinus is no longer present to compensate for the shortened extremity, there is a tilting of pelvis and shoulders to the shorter side.

Fig B-7 is a posterior view showing the same stage in the progression as seen in Fig B-6. The spine is still straight but the shortened right lower

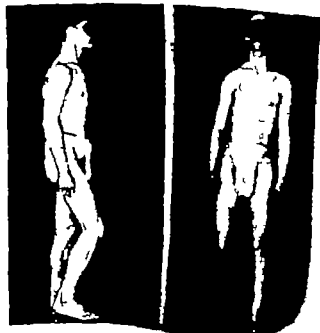


Fig B-3 Equinus compensates for shortening. Fig B-4 Anterior view showing hip abduction.

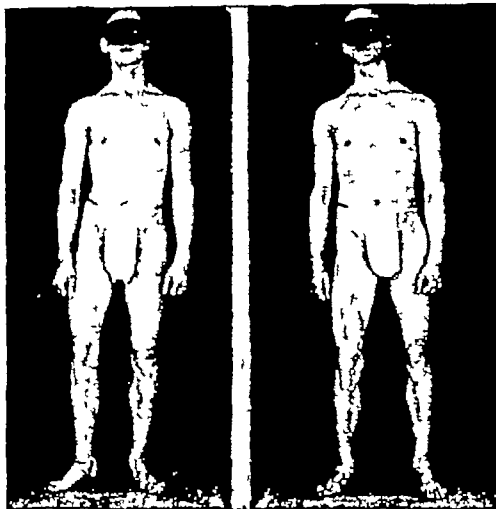


Fig B-5 External rotation further stabilizes base

Fig B-6 Shortened extremity causes tilting of pelvis and shoulder

extremity resulting from the flexed knee has caused a tilting of the pelvis and shoulders to the short side. The tilting of the head and eyes to an abnormal angle is the important factor here.

Fig B-8 is the end result of a flexed knee deformity. The same deformities in the lower extremities and the pelvis exist here as in Fig B-7, but the trunk has changed. In order to bring the shoulders, head, and eyes to their normal level, there has developed a lateral deviation of the spine resulting in a real scoliosis. The rotation present in the pelvis

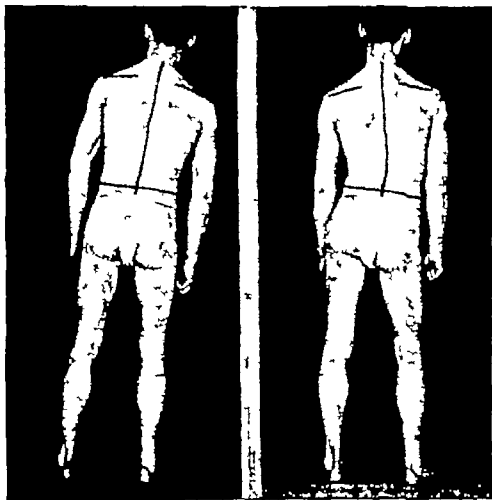


Fig B-7 Shoulders and pelvis tilted, spine straight

Fig B-8 Scoliosis required to compensate for tilting pelvis

and spine can only be suggested in the two dimensions provided by a photograph.

When a flexion deformity of one knee is seen in an early case of arthritis it is difficult to realize that such flexion, if not corrected, will precipitate a traumatic flat foot, strain on the internal lateral ligament of the knee, knock knee with traumatic synovitis, abduction and external rotation of the hip, tilting and rotation of the pelvis, and finally true scoliosis. However, this series of pictures cannot fail to demonstrate the progressive nature of a single, simple distortion into a complex group of severe deformities.

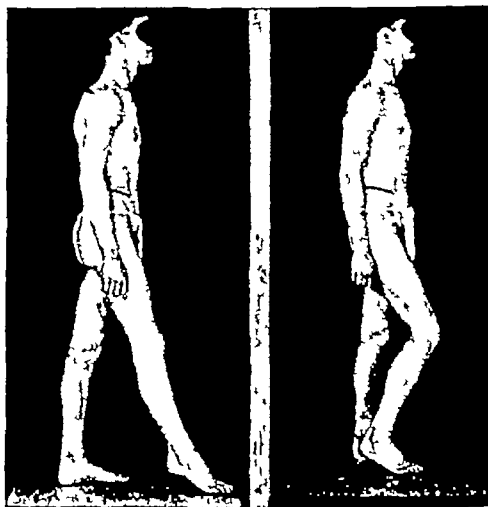


Fig C-1 Equinus lengthens extremity

Fig C-2 Knee flexion compensates for increased length

Progression of Deformities in Fixed Equinus

In Fig C-1, the subject has assumed a position of fixed equinus of the right foot causing an actual lengthening of the extremity.

Equinus is maintained in Fig C-2 but the knee has been flexed to compensate for increased length caused by the fixed equinus. Again the subject stands on "ball of his foot" providing an unstable weight-bearing base. The next stages in the progression of this deformity are the same as in Fig B-4 and B-5.

Abduction causes a tilting of the pelvis and shoulders to the right as shown in Fig C-3. The spine is still straight but the head and eyes are at an unfavorable angle.

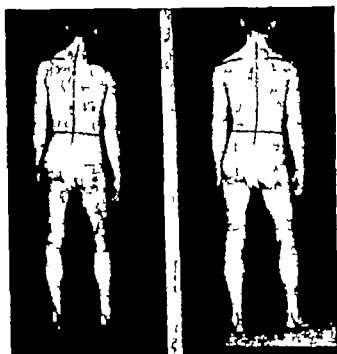


Fig. C 3. Tilting pelvis puts eyes at angle.
Fig C-4 Scoliosis compensates for tilting pelvis

Lateral deviation of spine again occurs to compensate for the tilting pelvis (Fig C-4). Rotation of the pelvis and spine exist but cannot be demonstrated in a photograph. Spinal deviation is not so great in equinus deformity as in knee flexion and flexion-adduction of hip because equinus results in a *lengthening* of the extremity and the tilting of the pelvis can be somewhat controlled by compensatory abduction. Knee flexion and flexion-adduction of the hip however cause a *shortening* of the extremity which cannot be so easily overcome.

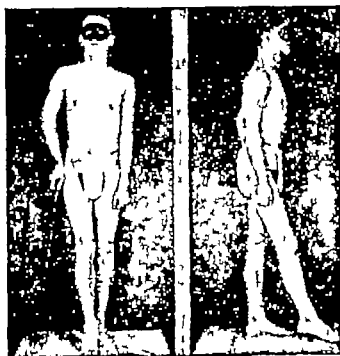


Fig D 1 Adduction shortens extremity
Fig D 2 Flexion increases shortening

Progression of deformities in fixed flexion and adduction of the hip

In Fig D 1, the subject has assumed a position of adduction of the right hip. In Fig D 2 flexion of the hip is also assumed. The flexion and adduction of the hip cause so much shortening of the extremity that the foot must go into equinus to compensate for the loss of length. In addition the subject must flex his knee to bring the right foot along side the left. This again precipitates

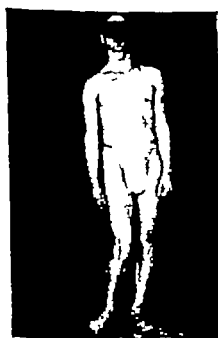


Fig D-3 Weight-bearing base stabilized at expense of knee and foot.

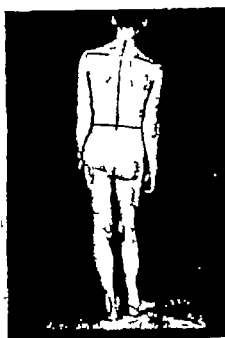


Fig D-4 Tilting pelvis and lordosis result

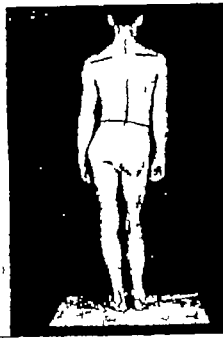


Fig D-5 Scoliosis again compensates for tilting pelvis

the unstable weight-bearing foundation (See Fig B-3)

Since the hip is fixed it cannot abduct nor externally rotate to provide a broader base, so the compensatory factors are a marked knock knee and eversion with some valgus in the tarsal joints. These changes afford a more stable weight-bearing foundation but do not compensate for the shortening of the extremity, a tilting of the trunk to the short side is the result. In addition a severe flat foot and knock knee are precipitated, the latter causing strain on the internal lateral ligament of the knee (Fig D-3)

Actual fixed flexion and adduction deformity of right hip

Fig E-1 shows a true fixed flexion and adduction deformity of the right hip due to a destructive arthritis. The deformity has caused a shortening of the right lower extremity so that the right foot goes into equinus to compensate for the shortening. The pelvis is fixed to the femur, hence forced extension of the right thigh causes a forward rotation of the pelvis and necessitates a marked lordosis of the lumbar spine.

In Fig E-2, the right foot is entirely

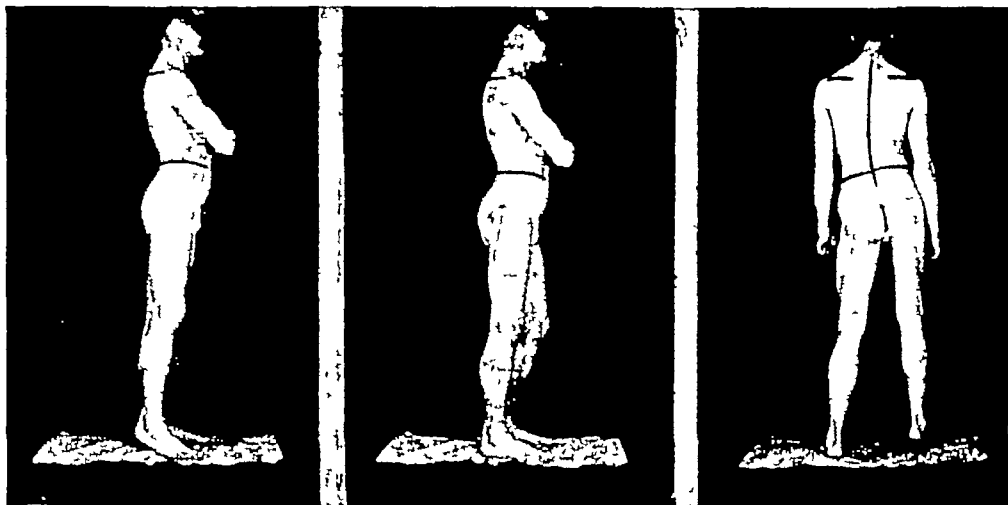


Fig E-1 Hip fixed in flexion and adduction forces increased lumbar lordosis

Fig E-2 Left knee flexes to compensate for shortened right leg

Fig E-3 Left hip abducts to compensate for increased length

Fig D-4 is a posterior view of Fig D-3. Spine is still relatively straight in lateral direction but lumbar lordosis, so typical of this deformity, can be noted. The shoulders and head deviate from their normal plane.

Final results of fixed flexion and adduction deformity of hip is shown in Fig D-5. Lateral deviation of spine with rotation is marked. Lumbar lordosis is obvious even in this view, and rotation of the pelvis (which is actually severe) is at least suggested in this two dimensional picture. Flat foot and knock knee persist.

This series again demonstrates how a complex group of deformities will develop when a patient is allowed to walk and stand with a distortion in only one joint.

on the ground to provide a stable weight-bearing foundation, but the left knee must flex to compensate for the shortened right side.

Scoliosis, lumbar lordosis, and rotated pelvis are present in Fig E-3 (Compare with Fig D-5). The severe flat foot and knock knee are absent because the patient's soft tissues are still strong enough to resist the strain. In this they are aided by the patient compensating for the shortened right leg by abducting the left hip.

Due to arthritic process ankylosing the adducted hip, the right femur has become fixed to the pelvis at an acute angle so that when the right leg is directly under the trunk the pelvis must tilt to the left.

The left lower extremity has been

shown to be functionally longer than the right and thus tilt of the pelvis to the left increases the proportionate difference and causes the left hip to go into marked abduction

A comparison of Fig D 5 and E-3 demonstrates the observation made in the introductory remarks that frequently patients with similar primary deformities appear to progress in different ways. Actually the fact is that the apparent difference is usually due to variations in general or local muscular development as in Fig E-3. As patients become older and the soft tissues less powerful, similar primary distortions lead to the same final complex deformities

Summary

1 Many deformities are due to chronic arthritis therefore all physicians treat-

ing arthritis meet the problem of deformities

2 There is a definite manner of progression from single, simple distortions of one joint to complex serious deformities involving multiple joints

3 If a patient with a simple distortion of one joint is not protected serious deformities of multiple joints will certainly follow

4 Familiarity with the nature of deformities and their progression will enable physicians to prevent disabling deformities in most of their patients suffering with chronic arthritis

5 The question of static strain predisposing normal joints to arthritis and the general subject of the prevention of deformities is suggested by this paper and will be considered in future presentations

140 E. 54 St

NO NEED TO WORRY OVER CANCER FROM A BLOW

Most laymen and women—especially women—have worried over the possibility of cancer arising from a blow or other injury they have sustained. Or if cancer has developed, the patient or his friends and relatives are more than likely to ascribe it to a recent injury

Such fears are groundless, in the opinion of leading cancer authorities. Dr George T Pack, of The Memorial Hospital for Cancer and Allied Diseases New York City, explained why in a recent report to the American Society for the Control of Cancer

Cancer of the breast he pointed out, is most frequently considered by the laity to be caused by an injury. This is natural because of the susceptibility of the breast to injury. However, the number of cases which can be fairly said to have originated in injury is "much too small to carry weight," Dr Pack said. The same is true for cancer of the bone. The number of cases in which injury could possibly be

accepted as the cause is so small as to make it impossible to accept this theory of origin. "In only one of the eight common varieties of bone sarcoma," Dr Pack continued, "does trauma or injury have a possible influence."

He added further that none of the available evidence bears out the lay fear that cancer of the internal organs can be attributed to injury or trauma, to use the medical term

"Perhaps the best way to set the minds of the public at rest," Dr Pack stated "is to consult the records of the World War. Surely the trauma was great enough and frequent enough and if it could cause cancer there should be evidence to support or else deny the claim. It is encouraging to discover that the percentage of tumors among war veterans is no greater than among the civilian population and that there has been no significant increase in the incidence of tumors since the war"—*Science News Letter*, June 4, 1938

A writer in a large magazine that sells at a dollar a copy declared feverishly in the November issue that the AMA is 'within hailing distance of its own downfall' because of its opposition to socialized medi-

cine. Many doctors would willingly wager that the AMA will be very much alive and doing business long after this cocksure writer and his magazine are gone and forgotten.

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EDITORIALS

Election Portents

Whatever their individual political preferences, the physicians of New York will do all in their power to help the officials elected on November eighth to retain and strengthen the pre-eminent position of the Empire State in public health. This position could not have been attained without close and friendly cooperation between organized medicine and the state government.

Governor Lehman and the Legislatures of the past two decades have realized the value of this cooperation. There is no reason to believe that they will abandon a policy which has borne such sound fruit for the poor yield of compulsory sickness insurance. Nevertheless the latter threatens. Public and legislators alike have been given a concentrated diet of propaganda from Washington portraying all of the theoretical benefits of obligatory pre-payment—but none of its proven disadvantages. Physicians must hammer away constantly—at their patients, their legislative representatives, and their local political leaders—to correct the false impression of compulsory sickness insurance which is gaining ground.

It is true that the outcome of the elections may give thought to the Administration in Washington and persuade it to reform the reforms it has already instituted before undertaking additional hastily conceived experiments. If counsels of

moderation prevail, there is hope that the profession will be given an opportunity to work out a sound, long-range plan in conformity to actual needs. The fact that the nation's health keeps reaching a new high, year after year, denies the existence of an emergency and proves that the present system is neither obsolete nor incapable of adaptation to new conditions and requirements.

Whatever the course followed at Washington, New York State should stand firm on the principles which have given it first place in public health. It leads the rest of the country in this field because it has kept the medical profession as its chief health adviser. Let it abandon this qualified counselor for inexperienced social theorists and it will become entangled in costly bureaucratic schemes which will lower the comparatively high standards of medical care enjoyed by workers here to the low level prevailing in most health insurance countries.

Importance of Schiller Test

In our presently accepted method for the reduction of mortality from malignant diseases, by far the greatest stress is placed upon early recognition and early treatment. This cannot be considered as "preventive medicine" in the true meaning of the phrase, but it is the best substitute that can be offered pending the

eventual discovery of a real preventive. Early diagnosis and early treatment can be given only when people will periodically submit themselves for a medical check up, and this holds true particularly for the malignancies.

It is in this sense that we can consider the Schiller test for the detection of early cancer of the cervix. Following exposure of the part and cleansing, a generous quantity of Gram's solution is applied to the cervix and permitted to stay in contact with it for at least five minutes. Differentiation between normal and cancer cells is demonstrable by the deep brown color of the former, in contrast to the lighter color of the latter, which appear as whitish spots. This reaction is the result of the glycogen deficiency of cancer cells. According to De Lee also Watkins,¹ this test should be performed on women in middle age at least once yearly.

When it is realized that the incidence of cancer of the cervix is second only to mammary cancer this simple test is a distinct advance in early diagnosis. By this means, treatment can be instituted at the earliest possible time and an increase in the number of "cures" can be hoped for. The simplicity of the test makes it readily applicable by the general practitioner.

New Typhoid Treatment

The marked reduction in the incidence of typhoid fever through prophylactic vaccination, coupled with the vigilance of health officers in the enforcement of the sanitary code has not deterred the medical profession from seeking a specific cure for the disease when it does occur. In the past, various specific remedies have been promulgated and tried—the intravenous administration of typhoid vaccine, convalescent serum and immuno-transfusions. By the latter, satisfactory results have been recorded, but the difficulty of obtaining a compatible donor who is actively immune to typhoid fever makes this mode of therapy impractical for routine use and therefore pooled sera of high

lysing and agglutinating properties are used instead.

Bower¹ has reported a new method of treatment which has yielded remarkable results. A pure culture of fresh, virulent typhoid bacilli is mixed with a stock culture of bacteriophage. Following complete lysis of the organisms the mixture is filtered through a Berkefeld filter and stored. When the lowest point in the daily temperature has been reached, one c.c. of this is given intravenously. This is followed by a sharp rise in temperature which then rapidly falls to normal or below. During the next twenty-four hours, even though the patient shows no clinical change, repeated oscillations in temperature are noted. After forty-eight hours, in cases wherein the response has been favorable, the temperature is normal, and a complete clinical cure is evident. In other words, this therapeutic regime results in a cure by crisis. Bower states that one, or at the most, two injections of one c.c. each of the prepared mixture are all that are needed, and where this amount has not sufficed for a cure, experience has shown that further treatment along this line is valueless.

Bower does not believe that the favorable reactions noted are due to the bacteriophage but rather to an immune reaction between the body and the specific typhoid proteins which in some manner have been altered by the bacteriophage. He feels that a new variety of typhoid vaccine has resulted from this means of preparation, the reaction of which needs further clarification. No untoward effects from its use have been noted thus far, and in hopeless cases, recovery has occasionally followed the administration of this new vaccine.

CURRENT COMMENT

" A GREAT NUMBER OF AMERICANS have been encouraged to believe that it is possible to grow richer by working less and by producing less, that it is the proper business of a government to subsidize large numbers of its people, that there is an in

¹ Watkins, R. E.: *Northwest Med.* 37:274 1938.

¹ Bower A. C. *Military Surg.* 83:70 1938.

exhaustible supply of money which can be used endlessly for this purpose, that those who advise greater caution in the expenditure of public funds, or who urge a relaxation of restraints which needlessly handicap private enterprise, are merely 'ducal overlords' who stand in the way of all progress. The dangers involved in such a course as this are an eventual bankruptcy of the National Government and an encouragement of 'class' prejudices which ought to have no place in the United States."—From the leading editorial in *The New York Times* of November 10

"EVERY AMERICAN WORTH HIS SALT wants to see the nation restored to the full vigor of economic health. By every rating, business activity is the country's first need.

"Business men have their work cut out for them, Government has a job to do. Both must pull together for better times. Unfortunately, statesmanship too frequently gives way to politics. When politics is played, politics must be paid."—Merle Thorpe comments in the October *Nation's Business*

"ORGANIZED MEDICINE MUST MEET the onslaught of socialized medicine with more than criticism. Physicians must inform themselves thoroughly on the subject and tell their patients honestly and fearlessly the difference between socialized medicine as proposed under compulsory health insurance, and the practice of medicine as it has been known since the time of Hippocrates."—Joseph E. Mott, M.D. discussing the "Inroads of Socialized Medicine" in the November *Bulletin* of the Passaic County Medical Society. Also in that *Bulletin* we read "The word 'socialize' has two different meanings. One definition of 'socialize' is to render social, to adapt to the needs of society. The other definition of socialize is 'to render socialistic, to adopt the methods and principles of socialism'."

"SOMETHING OF A REVERSAL of form has occurred in the attitude of the profession toward publicity. In former years it was felt that any medical man who appeared as a speaker at a public gathering was trying to get publicity for himself and build his own practice by unfair means. Now, however, it is realized that any member of the Society who speaks in public on medical matters is helping the entire medical profession far more than he helps himself. Indeed, the circumstances in which we find ourselves demand that we become vocal on our own

behalf. It has become the duty of every member of the Society to present purposes, aims and accomplishments of the profession whenever and wherever possible."—From the King's County Medical Society *Bulletin* recently

"THE AMERICAN PHYSICIAN knows, deeply and intuitively that State compulsory health insurance in the United States could not be anything but a disgustingly corrupt, expensive, despotic, inefficient juggernaut, debasing the incentives, the ideals, and the character of both the practitioners and the practice of medicine, and his experience with the emergency programs of state medicine that have been forced on him in the past several years have confirmed his worst fears in this respect.

"But the issue of the socialization of medicine involves a larger public question even than the fate of modern scientific medicine. If the public endorses state medicine, it must expect coincidentally to face the general question of political bureaucratic despotism under what has been historically and traditionally the most corrupt public service in any democratic nation."—From an editorial in the February 1936 issue of the *Westchester Medical Bulletin*. It was reprinted in full in the November 1938 issue of that journal and we saw fit to reproduce some of it here.

"THE LAST THING IN THE WORLD the sickness insurance advocates want is medicine's cooperation. Their howls about its lack, like their 'monopoly' suit, are aimed primarily at vote-building newspaper headlines—part of the familiar device of raising a wave of protest so as to coast into power on its crest.

"And why *should* they consult the medical profession? From the point of view of political expediency, they have every reason not to. They know that we don't care for the sickness insurance feature of their program. They don't want any alterations in it.

"Only by immediate action will a government coup be averted. The seven physicians on whom medicine's future depends can ill afford to sit back and wait passively for an invitation to a Washington tea party.

"The government has long complained that we have nothing constructive to offer, that we are unwilling to cooperate. Let's set them right. Let's take them at their word. Let's invite them to a tea party of our own."—H. Sheridan Baketel, M.D., writing in the November issue of *Medical Economics*

WORKMEN'S COMPENSATION

Silicosis and Dust Disease

The attention of physicians of New York State is called to Article 4-A of Chapter 887 'An Act to amend the workmen's compensation law in relation to occupational diseases and in relation to special provisions for compensation for certain injuries to the respiratory tract resulting from the inhalation of harmful dust, and to amend the labor law in relation to control of harmful dust in public works.'

The above article became effective June 6 1936. The former legislation governing occupational diseases was amended to include 'any and all occupational diseases as well as "any and all employments enumerated in subdivision one of Section 3 of this chapter" There was a provision that nothing in this subdivision shall be construed as applying to any case of occupational disease in which the last injurious exposure to the hazards of the disease occurred prior to September 1, 1935, nor to any disability or death due to silicosis and other chest diseases.' Section 65 of Article 4 A of the new law referred to the "prevention of silicosis and other chest diseases" It was declared to be the policy of the Legislature in enacting the new article to prohibit through every lawful means available any requirement as a prerequisite for employment which compels an applicant for employment in any occupation coming within the purview of this new act (referring to silicosis and other chest diseases) to undergo a medical examination. The Industrial Commissioner and Industrial Board were required to add to the industrial code rules and regulations governing the installation maintenance and effective operation in all industries and operations wherein silicosis dust or other harmful dust hazard is present of approved devices to eliminate such harmful dusts and to promulgate such other regulations as will effectively control the incidence of silicosis.

Section 66 refers to compensation payable for disability or death. Under this section no claimant is paid for *partial disability* due to silicosis or other dust disease. Payments are, however, made for *temporary* or *permanent total disability*. There is a sliding scale of claims depending upon the date of disablement and beginning with the first month in which the act becomes effective making payments in an amount not to exceed \$550 with an increase of \$50 per month for disablement or death in any ensuing month up to a maximum of \$3 000 the aggregate

amount payable for determining the total amount payable in the month in which disablement or death occurs. No payments into the special fund are made in the event that there are no persons entitled to compensation upon the death of the patient from silicosis or other dust disease. Compensation payments are made from the eighth day following total disablement at the rate of 66⅔ per cent of the average weekly wage but in no case to exceed \$25 per week nor in the event of total disability less than \$8 per week. There is a provision that in the event of death from this disease the dependants of the claimant shall receive any balance remaining between the amounts paid for disability and the total compensation payable under this article. All claims for compensation resulting from inhalation of harmful dust where the last exposure occurred between the effective date of this act and September 1 1935 shall be barred unless filed within 180 days.

Section 67 refers to the liability of the employer. An employer is liable when the disability of an employee resulting in loss of earnings shall be due to employment in a hazardous occupation if the disability results within one year after the last injurious exposure in such employment or if death occurs within five years following continuous disability from silicosis or other dust disease. The provisions of Section 44 of the Workmen's Compensation Law do not apply. This applies to the apportionment of liability among employers for whom the claimant worked prior to his last employment. The employer in whose employment the employee was last injuriously exposed in a hazardous occupation and the insurance carrier with which he was under risk at the time of the last injurious exposure are liable for any payments under the new law and notice of injury and claim shall be made to such employer.

Section 68 refers to medical treatment and care. Medical treatment is limited to a period of ninety days from the date of disablement, but may be extended upon the order of the Industrial Board of the Department of Labor for an additional ninety days.

Section 69 states that if an employee at the time of his employment falsely represents in writing that he has not previously been disabled from the disease which is the cause of disability or death or has not re

ceived compensation or benefits under the new act may receive no compensation.

Section 70 refers to special medical examiners and orders the Industrial Commissioner to divide the state into five districts in each of which he may appoint two or more special medical examiners, who are licensed physicians in good professional standing, who shall have had immediately prior to appointment at least five years of practice in the diagnosis, care and treatment of pulmonary diseases. These medical examiners are employed on a *per diem* basis and the fees are fixed by the Industrial Commissioner within the limits of the appropriation. These physicians are in the exempt class of civil service. When a claim is made for compensation under the new act and an examination of the claimant by an impartial physician is desired by any party in interest, the Industrial Commissioner shall order the medical examiner to make the necessary medical and x-ray examination of the claimant to obtain impartial medical facts. The Industrial Board is ordered to adopt rules of practice and procedure and prescribe methods and standards under which physical examinations, x-ray, and other studies shall be conducted.

Section 71 refers to expert consultants and provision is made for the Industrial Commissioner to appoint as expert consultants three licensed physicians in good professional standing who shall have had at least ten years of practice immediately prior to appointment in the diagnosis, care and treatment of diseases of the pulmonary tract along with the interpretation of x-ray films. They shall be paid a salary to be fixed by the Industrial Commissioner not to exceed \$7,500 per year. These physicians are also under the exempt class of civil service.

The Industrial Commissioner or the Industrial Board of their own volition or on the application of an employee, an employer, or an insurance carrier may direct such expert consultants to make examinations of claimants, to review the findings of the special medical examiners, to read and review the files of compensation cases when necessary, and to inform the industrial commissioner and the industrial board of their opinion and findings in such cases.

Section 72 states that the liability of an employer under the new act is exclusive and in place of any other liability at common law or otherwise, to such employee, his representatives, relatives, dependents, or any one otherwise entitled to recover damages, at common law, or otherwise on account of any injury, disability, or death, caused by the inhalation of harmful dust. However, if the employer fails to secure

the payment of compensation for his injured employees and their dependents as provided in this chapter, an injured employee, or his legal representative in case of death, may, at his option, elect to claim compensation under this chapter, except that if an employer failed to secure the payment of compensation for his injured employees and their dependents as provided in section 50 of this chapter (self insurers or insurance carrier) the injured employee, or his representatives in case of death from injury or disease, may, at his option, elect to claim compensation under the new chapter or to maintain an action in the courts for damages, and in such action it shall not be necessary to plead or prove freedom from contributory negligence nor may the defendant plead as a defense that the injury or disease was caused by the negligence of a fellow servant, or that the employee assumed the risk of his employment, nor that the injury or disease was due to the contributory negligence of the employee.

Section 3 refers to Chapter 50 of the laws of 1921, which is amended by the insertion of a new section called 222-a "Prevention of dust hazard in public works" and refers to the construction of public works by the state or public benefit corporation or a municipal corporation or a commission appointed by law wherein a harmful dust hazard is created for which appliances of methods for the elimination of harmful dust have been approved by the Industrial Board to provide for the insertion in each contract of a provision requiring the installation and maintenance and effective operation of safety appliances and methods, and voids a contract unless this section is complied with.

The department, board or officer having jurisdiction over the construction of such work shall provide for the installation and effective use of approved appliances or methods, and a violation of this section constitutes a misdemeanor. This act was approved June 6, 1936, and took effect immediately.

Chapter 888 was also approved at the same time and provides for the expenses of rehabilitating injured employees. It provides that an employee, who as the result of injury is or may be expected to be totally or partially incapacitated, and who under the direction of the State Department of Education is being rendered fit to engage in a remunerative occupation, shall receive additional compensation necessary for his rehabilitation, and not more than \$10 per week shall be expended for maintenance. A special fund was created from which such expenses and administrative expenses of the

State Department of Education as are partly assignable to the expenses of rehabilitating employees entitled to compensation shall be paid. This fund is maintained by payments from employers or insurance carriers for injuries causing death in which there are no persons entitled to compensation, in the sum of \$500. There may be expended from this fund annually for a period of five years commencing July 1, 1936 an amount not to exceed \$50,000 in any one year, for the purpose of making such studies as may in the judgment of the Industrial Commissioner be advisable, of means and methods of eliminating hazards

to life and health from dusts and other occupational diseases and disseminating information on the subject of control and prevention.

This section also provides that any information obtained in connection with these studies and investigations shall not be admissible as evidence in any action at law or in the adjudication of any claim arising under the Workmen's Compensation Law.

Section 889 applies to the appropriation from the treasury of the state the sum of \$100,000 to carry out the provisions of the above sections relating to silicosis and industrial diseases.

Correspondence

[THE JOURNAL reserves the right to print correspondence to its staff in whole or in part unless marked "private." All communications must carry the writer's full name and address which will be omitted on publication if desired. Anonymous letters will be disregarded.]

CITY OF UTICA DEPARTMENT OF PUBLIC SAFETY BUREAU OF POLICE

Peter Irving, M D,
2 East 103rd Street
New York City

Dear Dr Irving

Several days ago a check was presented to Dr James W Flemming, 246 Genesee Street, this city, by an individual representing himself to be J D Ryan. This check was protested by the First National Bank and Trust Company of Massena, N Y, on which the check was drawn. Said bank has no account in the name of E. T. Yates, signer of the check. A subsequent check on these individuals at Massena shows that neither is known there.

Captain C. J. Broadfield, commanding Troop "B" of the New York State Police in recent communications, informs us that the above mentioned bank has received two other checks one from Binghamton, N Y, payable to W E. Bowen and signed by R. M. Myers for \$30.00 and the other from Hancock N Y payable to J M Morgan and signed by Charles F. Fain, also for \$30.00. Troop "B" holds a warrant charging a misdemeanor for one J. C. Palmer who passed fraudulent or forged checks signed

by R. D. Wallace both checks being drawn on the Niagara County National Bank and Trust Co of Lockport, N Y. Said checks were passed in Malone and Ogdensburg.

From notations on these checks comparisons of handwriting and from descriptions given there remains little doubt that these checks were issued by one and the same man.

This person is described as follows

Age	50	Complexion	Medium
Height	5 feet 10 inches	Eyes	Blue
Weight	220	Hair	Brown

Face has appearance of a person who has spent much time out of doors. Hair is slightly wavy. Speech is slow. At the time of his visit at Dr Flemming's office, he wore a blue suit.

From facts produced, we believe that this man is making periodic visits to various eye doctors in this state where he passes fraudulent checks regularly.

Inasmuch as the subject is still at liberty to make further visits and to present more checks we request that as secretary of your association you notify and warn all eye doctors by means of a circular.

Very truly yours

N. C. DOLL,
Chief of Police

November 1 1938.

"Rheumatism," said the doctor, 'causes a man to imagine that his joints are very much larger than they actually are.'

"I know," said Mr Smith. Our butcher has it."

—Medical World

Doctor 'Has your husband taken the medicine I prescribed? A tablet before each meal and a small whiskey after?'

Wife 'Well, I think he is a few tablets behind but he is a month ahead with the whiskey! —Mutual Underwriter

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

MADISON COUNTY The annual meeting of the Fifth District Branch was held at the Hotel Oneida on October 6. Among the many guests of the Madison County Auxiliary was Dr William Groat, President of the State Medical Society who brought greetings from the State Society. Mrs Daniel Swan, President of the Woman's Auxiliary, spoke on "The Aims, Purpose and Work of the Auxiliary."

The annual meeting of the County Auxiliary was held on October 13. Annual reports were given by the outgoing officers and committee chairman. Mrs Otto Pfaff is the new President. After the business meeting, Mrs E H Carpenter showed colored moving pictures of a trip to California by way of the Panama Canal.

NASSAU Mrs Daniel Swan and Dr Louis Bauer, President of the Medical Society of Nassau County, were guests of the Auxiliary at the membership tea.

ONONDAGA COUNTY The Auxiliary met November 1, in the Syracuse Museum of Fine Arts. Mrs Marion S Dooley, honorary member was the guest speaker. After the social hour, the members visited the ceramic exhibition in the museum.

RENSSELAER COUNTY A meeting of the Auxiliary was held in the Leonard Hospital on November 1. The guest speaker was Mr Harold M Lewis, a constitutional convention delegate who explained the proposed amendments. The nominating committee presented its slate of officers. An invitation had been extended to the Woman's Auxiliary of the County of Schenectady to attend this meeting.

SARATOGA Mrs G Scott Towne, President of the Woman's Auxiliary to the Medical Society of Saratoga County, entertained the members of her Executive Board at luncheon. Plans were discussed for the year's activities.

The first meeting of the auxiliary was held in the home of Mrs Bullard. A very interesting program had been arranged. Members read articles on subjects of interest to doctors and doctors' wives. The new camp for diabetic children recently opened at Kerhonkson, was described by Mrs Arthur Leonard. Here children financially

unable to secure the services of private physicians are taught self-injection of insulin and other diabetic requirements to keep them in good health. The members voted to send Sunshine Baskets to doctors' wives who are shut-ins. Each auxiliary member contributes something for the baskets. The auxiliary is very proud of its growth in membership.

SCHENECTADY COUNTY The Auxiliary met on October 25 in Sunnyview Hospital. Dr A J Hambrook, a member of the Advisory Council of the Medical Society of the State of New York and member of the Public Relations Committee spoke on "Public Relations." Members of the Woman's Auxiliary of Rensselaer County attended.

SUFFOLK COUNTY The annual meeting of the Auxiliary was held October 26 in the Crescent Club in Huntington. Officers and chairman of committees gave their annual reports. Mrs G K Oxholm, chairman of Program introduced two boys who attended Boys' State last July. These boys described Boys' State and outlined the efforts of the American Legion in creating these camps where American boys who are juniors in high school may learn to be good American citizens. This project is a laboratory in human relations for the boys live, work, and play together for a week of intensive training. They make their own laws and get a practical working knowledge of the best methods to conduct government "of the people, by the people and for the people."

Mrs Edwin Kolb was elected President and Mrs E Raymond Hildreth President-Elect.

* * *

OUR PRESIDENT, MRS DANIEL SWAN, attended the Board of Directors meeting of the Woman's Auxiliary to the American Medical Association held in the Palmer House Hotel, Chicago on November 11.

* * *

CORRECTION Mrs F Leslie Sullivan is President of the Woman's Auxiliary to the Medical Society of the County of Schenectady and not of the County of Columbia as stated in this section of the November 15 issue of this journal.

Public Health News

Public Health Notes

J ROSSLYN EARP, L R C P, Dr P H.

New York State Department of Health

Annual Meeting—American Public Health Association

In the State Health Department there are no two opinions about the success of the annual conference of the American Public Health Association. We are all, of course, delighted at the unanimous choice by its governing council of our State Health Commissioner to be president-elect of the association. Only three years ago at Milwaukee the council's choice similarly fell upon the health commissioner of this state. New York can consider itself complimented but indirectly. Presidents are chosen on account of the distinction with which they have served the association and the wider cause of the public health. Dr Godfrey has taken an active part in the affairs of the association as a member of its governing council for the last ten years.

The recommendations made to the National Health Conference in July by the Technical Committee on Medical Care were presented at Kansas City by Mr. A. J. Altmeyer, Chairman of the Social Security Board. The action of the special session of the American Medical Association House of Delegates was described by Dr. Irvin Abell. Professor Winslow of Yale University spoke as a lay expert in public health and Mr. Fred K. Hoehler for the American Welfare Association of which he is executive secretary. A resolution was adopted by the Association endorsing the proposals of the Technical Committee. A special committee of the Association will be appointed by the executive board to confer with the Technical Committee and with the special committee of the American Medical Association.

Four years ago at Pasadena Dr. Haven Emerson in a presidential address had announced that the voluntary health organizations had already served their purpose. The rapid expansion of functions assigned to official health agencies since that time seems to have largely justified his utterance of doom. This year the public health education section discussed the question: "Is the private health agency on the way out?" Bleeker Marquette, Executive Secretary of

the Cincinnati Public Health Federation thinks not. But he admits that the private agency must find itself a new place in the sun. The fuller life of the official agency has been planned by some of the best brains in the voluntary organizations. These leaders recognize that they still have a contribution to make. But in the future they must major more on community planning, research, education, development of citizen interest in health work in general. He adds a final function which I feel sure Dr. Emerson himself would approve. "Private agencies will, of course, have some opportunity in helping to see to it that the new tax funds are spent to the best advantage and that functions taken over by the public agencies are efficiently performed."

Among the scientific papers was one inserted after the program had been completed on account of its particular interest. Dr. Roy F. Feenster, Director of the Division of Communicable Diseases of the Massachusetts Department of Public Health, reported on behalf of the group of investigators in that state the present position of their studies on equine encephalomyelitis. The epidemic among horses occurring from August to October of this year included 250 animals. The case fatality rate is given as over ninety per cent. Human cases have been recognized for the first time in connection with this epidemic. The Eastern strain of equine virus has already been recovered from seven human cases and there are at present some thirty additional cases under investigation. Most of the cases have been in children, although one man was fifty-five years old. The onset in children is sudden. The characteristic symptoms are fever, 102-105° F., irritability or drowsiness, headache or convulsions. Fatal cases lapse into coma and do not recover consciousness. The method of transmission is at present unknown. Experimentally the virus can be conveyed by mosquitoes. It can also be conveyed by spraying the mucous membrane of the nose. No case has as yet been traced to human contact nor has any case been found to have had intimate contact with horses.

Medical News

Albany County

DR C SIDNEY BURWELL of the Harvard Medical School, addressed the Society on October 26 on the diagnosis and treatment of constrictive pericarditis

Bronx County

THE PROGRAM OF THE Bronx County Medical Society on October 19 included I Executive Session, II Inaugural Address, Edward P Flood, M D, President, Bronx County Medical Society, III New York State Medical Society, William A Groat, M D, President, State Medical Society, IV State Constitutional Convention, Joseph Lawrence, M D, Executive Officer, State Medical Society, V Washington Health Conference, Arthur W Booth, M D, VI Legislative Committee for the Study of Medical Care, Thomas P Farmer, M D

Chemung County

"PNEUMONIA" was the subject of an address by Dr Samuel H Bassett, assistant professor of medicine of the University of Rochester, at a meeting of the Chemung County Medical Society on October 13 in the Arnot-Ogden Hospital. His talk was one of a series arranged for the fall

Delaware County

THE QUARTERLY MEETING of the Delaware County Medical Society was held at the Episcopal Parish House in Walton on September 27. Dr Fred M Johnson spoke on radium treatment of cancer

Dutchess County

THE REGIONAL FRACTURE COMMITTEE of the American College of Surgeons conducted the Dutchess County Medical Society meeting in Poughkeepsie on October 12. Approximately 125 doctors were present. A dinner preceded the scientific meeting

The main speaker was Dr Robert Kennedy, chief of the surgical staff of the Beekman Street Hospital, New York City, chairman of the New York-Brooklyn Regional Fracture Committee, who spoke on the aims and objects of these committees, laying stress on the importance of better care in handling and later treatment of fractures throughout the United States

Franklin County

DR E M AUSTIN, Tupper Lake physician and Town of Altamona health officer,

was elected president of the Franklin County Medical Society at a meeting at Malone, on October 21

Other officers elected include

Vice-President
Secretary Treasurer

Kenneth A. Tulloch, Malone
Daisy Van Dyke, Malone

Delegate
Charles Trembly

Alternate Delegate
J C White

Kings County

DRS JAMES ALEXANDER MILLER AND ADRIAN LAMBERT addressed the Brooklyn Thoracic Society on October 21 on pulmonary tuberculosis. Discussion was opened by Drs J Burns Amberson and Frank B Berry

Madison County

A COURSE ON GENERAL MEDICINE (No 1) has been arranged by Dr Walter W Palmer, New York City, for the Madison County Medical Society to be held at the Hotel Oneida, Oneida, N Y, starting at 8 30 P M

DEC 8 "Asthma," Dr Albert VanderVeer
DEC 15 "Nephritis," Dr John D Lytle
DEC 22 "Diabetes Mellitus," Dr David D Moore.

Monroe County

RECENT DEVELOPMENTS in treatment of sinus infections were discussed by Dr Samuel J Kopetzky, New York, on October 3 in the first address of the eleventh annual postgraduate lecture course of the Monroe County Medical Society at the Rochester Academy of Medicine

New York County

THE EIGHTH ANNUAL combined Medical-Dental meeting, comprising the Joint Committees of the Organized Medical and Dental professions of Greater New York, will be held in the Hotel Pennsylvania in New York City on December 5

The morning session which begins at 10 A M includes papers by Theodor Rosebury, D D S, Thomas A Cook, D D S, Nathan Rosenthal, M D, and Walter F Watten, M D

The afternoon session beginning at 2 P M will be Clinical

THE OCTOBER 24 MEETING OF THE Medical Society of the County of New York was held in conjunction with the Annual Graduate Fortnight of the New York Academy of Medicine. The scientific program was one of the most brilliant ever assembled by Academy or County Society. Following an

address of welcome by President James Alexander Miller of the Academy, Dr George R. Minot Professor of Medicine at Harvard presented "General Aspects of the Etiology, Diagnosis and Treatment of the Macrocytic Anemias," followed by Dr C. P. Rhoads Associate Member of the Rockefeller Institute, on 'Macrocytic Anemia of Sprue and Allied Conditions' Dr Maurice B. Strauss Instructor in Medicine at Harvard, described "Neural Manifestations and Their Treatment" and Dr Cyrus C. Sturgis Professor of Internal Medicine at the University of Michigan, closed with a discussion of Differential Diagnosis and Some Observations Concerning Treatment."

Onondaga County

DR. LEON E. SUTTON was nominated without opposition at a meeting of the Onondaga County Medical Society on November 1 to succeed Dr Oliver W. H. Mitchell as president of the organization at the annual election December 6.

Other uncontested nominations were

Vice President	Officers
Secretary	Brewster C. Doust Syracuse
Treasurer	Dwight V. Needham, Syracuse
	Carl A. Hoffman, Syracuse

Censors

Clyde O. Barney and Thomas F. Laurie

Delegates

Albert G. Swift and W. W. Street

Alternate Delegates

Donald E. Childs and F. S. Wetherell

Five men were nominated for four positions as delegates to the fifth district branch of the New York State Medical Society. They are Dr George L. Wright, Dr Raymond J. Pieri, Dr Leon E. Gibson, Dr E. J. Allen and Dr Horace W. Whitley.

Queens County

DR. RUSSEL C. PARIS, Hudson Falls physician and former mayor of that village, has presented to the Medical Society of the County of Queens, Inc., numerous old rare medical books which once belonged to his great-grandfather, Dr. Russel Clark, who practiced medicine in Sandy Hill, now Hudson Falls, in the early part of the nineteenth century.

Five of the most interesting books are listed in the current bulletin of the Medical Society as follows: Bell Benjamin, A Treatise on Gonorrhea Virulenta, 1795; De Sault, P. J., "A Treatise on Fractures" 1805; Leake John, On Diseases Peculiar to Women 1792; Tytler James, A Treatise on the Plague and Yellow Fever, 1790; Wallis George, 'The Art of Preventing Diseases and Restoring Health' 1794.

Rensselaer County

THE RENSSELAER COUNTY Medical Society, meeting at the Health Center in Troy on October 11, voted to ask the County Board of Supervisors for at least five more public health nurses for general duty in the county.

An illustrated talk on Visual Fields as an Aid in Diagnosis was given by Dr. John B. Burke.

Richmond County

DR. SAMUEL SPIGLER, attending gynecologist at Brooklyn Women's Hospital, delivered an illustrated lecture on Sterility Its Causes and Treatment at a meeting of the Richmond County Medical Society on October 12.

Saratoga County

DR. RALPH B. POST of Ballston Spa was elected president of the Saratoga County Medical Society at the annual meeting held at Mount McGregor, succeeding Dr. Walter S. McClellan of Saratoga Springs, who served two terms.

Others elected were

Vice-President	Officers
Secretary	Gabriel Pasquerra, Mt. McGregor
Treasurer	Malcolm J. Magovern, Saratoga Springs
	W. J. Maby, Mechanicville

Censors

Frederic J. Resseguie, G. F. Goodfellow
Miles J. Cornthwaite

Delegates

G. Scott Towne

Alternate Delegate

J. R. MacElroy

A new constitution was adopted and reports given by each chairman of a committee and officers.

Schoharie County

THE ANNUAL MEETING OF THE Schoharie County Medical Society was held at the Middleburgh central high school on October 11. At the business session in the morning the following officers were re-elected for the ensuing year:

President	Carolyn L. Olenkoff, Cobleskill
Vice-President	Lynnan Driesbach, Middleburgh
Secretary	Herbert L. Osell, Sharon Springs
Treasurer	L. R. Becker, Cobleskill

Westchester County

THE DEVELOPMENT OF A PLAN to offer voluntary insurance providing indemnities against medical expenses for residents of Westchester is progressing. The Westchester County Medical Society was told at its meeting in White Plains on October 18.

Hospital News

Newsy Notes

HEPBURN HOSPITAL at Ogdensburg has raised its rates for patients who are city charges from \$12 60 a week to \$17 50, due to increased costs

DIRECTORS OF THE Rochester Hospital Service Corporation have made its non-profit hospitalization plan available to individuals, as well as to groups. The enrollment is now "well over 100,000," or "one out of every four members of the community," the director says, and has "the largest proportion of subscribers in relation to population reported by any non-profit hospital service plan in the country."

GOVERNOR CROSS of Connecticut appointed a committee of twenty-two in September to prepare a state-wide plan of hospital-care insurance. At the call of the Governor, a group met for preliminary discussion and came to the conclusion that it should be carefully studied and proposals drafted in advance of the legislative session, and that whatever plan is undertaken should be non-profit making in character.

YONKERS PROFESSIONAL HOSPITAL has installed a resuscitator and inhalator to start newborn babies breathing, a device already in use in other large hospitals. It takes the place of the time-honored methods of spanking, hot-and-cold-water dunking, and "mouth to mouth" breathing.

A SERIES OF PARTIES for the entertainment of patients in the Kings County Hospital has been arranged for the entire season by the Social Service Board of the hospital. The affairs are given each month, each under the auspices of a specific group. Various churches donate cakes and other luxuries for the occasions. Pipes and smoking tobacco are supplied to men patients. Balloons and other toys are given the children.

Improvements

THE NEW \$600,000 SIX-STORY wing of the Brooklyn Hebrew Home and Hospital is expected to expand its capacity from 487 patients to 887.

SOME \$250,000 WILL BE SPENT in remodeling and repairing the Neponsit Beach Hospital for crippled and tubercular children, according to Lester C. Scott, Queens WPA director.

A TWO-STORY, twenty-room addition to the Dreyfus Home for Nurses at the Richmond Memorial Hospital, Staten Island, is under construction, the gift of Mrs. Louis A. Dreyfus.

CONSTRUCTION HAS BEEN STARTED on a \$60,000 addition to Physicians Hospital, 34th avenue and 73rd street, Jackson Heights. The new wing will increase the capacity of the hospital from 70 to 110.

DR. DONALD R. KELLER is building a new private hospital at Westhampton Beach.

A TOTAL OF SOME 5,000 signers have petitioned the Schenectady city council to increase the bed capacity of the city hospital.

At the Helm

THESE HOSPITAL OFFICIALS HAVE BEEN CHOSEN

Dr. Joseph M. Sheridan, to be superintendent of the Neurological Hospital, Welfare Island.

W. A. Pond Phipps, to be president of United Hospital, Port Chester.

Dr. Robert D. Manning, to be president of the medical board of the Peekskill Hospital, reelected.

Patrick J. Tierney, to be president of the directors of the Champlain Valley Hospital at Plattsburg.

Miss Clara M. Wolf, to be superintendent of the Eastern Long Island Hospital at Greenport.

Across the Desk

Wanted Sleuths to Detect the Lies of the "Lie Detector"

"WHO WILL TAKE CARE OF THE CARE TAKER'S DAUGHTER?" was a popular song of the ribald and uproarious nineties. Or if that is too flippant a reference we may go classic and ask with the noble Romans "*Quis custodiet custodes ipsos?*" * Which may be rendered, "Who will Watch the Watchers?" or, more freely, "Who will dog the watch-dogs?" Now the question comes up "Who will Detect the Lies of the Lie Detector?"

For the popular magazine writers and literary magicians of the Sunday supplements have made the public believe that the falsehoods of the criminal can be detected in a moment by a machine that jots down every lie with a pen as swift and sure as that of the Recording Angel the two acting practically in unison.

The idea is that when Bill the Burglar is suddenly asked if he took the jewels his breathing will change to short, sharp gasps, his blood pressure will go up and down his hands will break out in a cold sweat and his hair will take a perpendicular position. If Bill then swears he is innocent, it is clear he is lying.

It seems like a prosecuting attorney's dream where all the guilty are sent to jail or like the Judgment Day when all sins are revealed. It seems too good to be true, and that, in fact, is the case. It is

Music of the Lyre Hath Charm

The lyre of old was a stringed instrument of great charm. In the hand of a true artist it cast a spell over the listener. Some what similarly the artistic liar of today can leave the mere simple truth-teller miles behind. His respiration is smooth as a child's his systolic and diastolic pressures are unruffled and the lie-detector writes him down as truthful as little George Washington de foresting the cherry orchard.

Innocent people, too are sometimes nervous and quick tempered and when you ask one of them a question that implies he is a

crook, the needle of the lie-detector starts cutting capers all over the place, as if Ananias had come to life and was under the test. So the lie-detector is sometimes itself the liar. Who then will be the detective to detect the detector?

This subject was discussed at a joint meeting of the doctors and lawyers of Detroit by two men from the psychopathic clinic of the city's recorder's court John A. Larson M.D. Ph.D. and Lowell S. Selling M.D. Ph.D. Dr. Larson is the author of *Lying and its Detection*, a standard work. He began by saying frankly that regardless of much publicity, there are no machines which detect lies despite the various models of polygraphs on the market sold for the examination of suspects.

The machines are also often in the hands of lay operators who do not understand the basic physiological and psychological principles involved, and who try to have the lie detector records forced into judicial procedure without having any idea of the actual validity of the methods. Police have even tried to diagnose mental disease from the jerks and quirks of the stylus on the polygraphic sheets.

Machine is Invaluable—in the Right Hands

Machines are now in use in the state police departments of Pennsylvania, Indiana, Michigan and Rhode Island and in many banks and business houses in Illinois. It is evident, therefore, that they have been found to be of value and it is important to examine their strong and weak points to find how to make them of more service. The machines do not really lie, perhaps but their wig wags are very very deceptive. Their present status is one of extreme chaos declares Dr. Larson due partly to the fact that laymen are attempting to use these most complicated clinical instruments of precision and are often actually making impossible clinical diagnoses and due partly to the over-exploitation of machines for profit, "with no understanding of the basic scientific or ethical principles involved." In spite of this chaos ill-advised enthusiasts

*Latinity not guaranteed—quoted from (rather spotty) memory

are trying "very prematurely" to force this technic into court usage.

It will not do to get the idea that the "lie detector" is useless or of little value. Like many other tools, it is of less value in wrong hands, and more value in right ones. It is important, for instance, that one of the staff using it should be a medical man. Conducted by a suitably trained staff, which must include a clinician, says Dr. Larson, deception tests may be invaluable in service, first in the primary investigation, and later in court clinics and private laboratories as a part of psychiatric technic in modifying psychoanalytic procedure.

It has been found, as a matter of fact, that even with the present unscientific application, in which the technic is used by many as a psychological third degree, there has been a marked increase in the clearing up of cases. We must remember that no apparatus diagnoses deception, but merely registers painful complexities and disturbances, and it is then for the staff to analyze and differentiate them, as in any medical diagnosis. We cannot just glance at the zig-zags on the graph, and say, "This one is the truth, that one is a lie."

What is more, we are warned by this expert that all such deception-tests should be treated as merely one part of the analysis of the entire setting of the crime, and should be integrated with each individual personality analysis. It is not enough for the examiner to have either medical or criminological training alone, but there should be "a combined staff consisting of the investigators, the examiner ideally with legal psychological training, and a psychologist and licensed physician or a forensic psychiatrist. These last three named should be present throughout every examination."

Test Records Never Used Alone

So large are the errors of interpretation

that "a deception-test alone should never be used as court evidence," and even "if incorporated as a part of a psychiatric examination, the test records alone should never be used as indicative of guilt or innocence," says Dr. Larson, and he tells us that in some seventeen years of personal experience he has never had a suspect "booked" or released from custody relying upon a deception test alone.

To show how widely investigators may differ in their judgment on identical records, and how hard it is "to differentiate the specific guilt reaction," he cites an illuminating instance.

In one case in which sixty-two suspects were examined by the writer and a trained clinical criminologist, using the Keeler polygraph, there were many disturbances. The type of polygraph makes but little difference.

A group of nine, most of whom were clinical psychologists, including four whom the writer would qualify as experts in this field, showed wide divergence. The percentage of records selected as being guilty varied from eight to fifty-two per cent.

The most accurate interpretation was by a clinician who had never seen a deception test or records from such. The highest percentage of error was among those most familiar with the procedure.

Well, anyway, we seem to be still far from the day when every home can have a lie-detector, to tell if Johnny has marked his report card up a few points, or if Sue has been out with that horrid, handsome Larry again, instead of with Percival, as she claims. Father's graph might show a few odd quirks, not to say anything about Mother's, but if we are to believe Dr. Larson, they are all safe so far. The eternal music of the lyre's strings will still string us along, and the modernized version of the poet's lines will still be sadly true.

"The light that lies in woman's eyes,
—And lies and lies and lies"

A course on Heart Disease has been arranged by the New York Heart Association (386 Fourth Ave., New York City) for the Oneida County Medical Society to be held in the Hutchings Auditorium of the Utica State Hospital, Utica. All lectures start promptly at 8:30 P. M. Data is as follows:

DEC. 7 "Rheumatic and Syphilitic Heart Dis-

ease" Dr. Carl Eggleston

DEC. 14 "Acute Cardiovascular Emergencies" Dr. John E. Deitrick

DEC. 21 "The Use of X-ray and Fluoroscopy in the Management of Heart Disease." Dr. Harold E. B. Pardee

DEC. 28 "The Use of the Electrocardiogram in Heart Disease." Dr. Harold J. Stewart

JAN. 4 "Therapy in Heart Disease." Dr. Harry Gold

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and the interest to our readers.

RECEIVED

New and Nonofficial Remedies, 1938. Containing Descriptions of the Articles which stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1938. Duodecimo of 589 pages. Chicago, American Medical Association, 1938. Cloth, \$1.50.

Surface and Radiological Anatomy For Students and General Practitioners. By Arthur B. Appleton, M.D., William J. Hamilton M.D. and Ivan C. C. Tchaperoff, M.D. Quarto of 311 pages illustrated. Baltimore, William Wood & Company, 1938. Cloth, \$5.50.

Electrotherapy and Light Therapy. By Richard Kovacs, M.D. Third edition. Octavo of 744 pages illustrated. Philadelphia, Lea & Febiger, 1938. Cloth, \$7.50.

A Textbook of Physiology. By William D. Zoethout, Ph.D. Sixth edition. Octavo of 714 pages illustrated. St. Louis, The C. V. Mosby Company, 1938. Cloth \$4.00.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Edited by H. Letheby Tidy M.D. and A. Rendle Short M.D. Octavo of 615 pages, illustrated. Baltimore, William Wood and Company, 1938. Cloth \$6.00.

Industrial Surgery. Principles, Problems and Practice. By Willis W. Lasher M.D. Octavo of 452 pages illustrated. New York, Paul B. Hoeber Inc., 1938. Cloth \$6.00.

Sulfanilamide Therapy of Bacterial Infections. With Special Reference to Diseases Caused by Hemolytic Streptococci, Pneumococci, Meningococci and Gonococci. By Ralph R. Mellon M.D., Paul Gross M.D., and Frank B. Cooper M.S. Octavo of 398 pages. Springfield, Charles C. Thomas, 1938. Cloth \$4.00.

The Culture of Organs. By Alexis Carrel and Charles A. Lindbergh. Octavo of 221 pages illustrated. New York, Paul B. Hoeber Inc., 1938. Cloth \$4.50.

REVIEWED

Treatment in General Practice. By Harry Beckman, M.D. Third edition. Octavo of 787 pages. Philadelphia, W. B. Saunders Company, 1938. Cloth, \$10.00.

In this edition a new section on endocrine disturbances includes diabetes mellitus, diabetes insipidus and hyperinsulinism. Obesity and malnutrition have a section of their own and that of diseases of metabolism has been dropped. Among many other new sections are those on menstrual disturbances, diseases of the liver and bile passages and the anemias. A considerable number of entities appear for the first time.

The book is well known and deserves its popularity covering as it does a large field and is very convenient for quick reference. Forty closely written pages are necessary for the bibliography.

WILLIAM E. MCCOLLUM

Man, Bread and Destiny. The Story of Man's Food. By C. C. Furnas and S. M. Furnas. Octavo of 364 pages. Baltimore, Williams & Wilkins Company, 1937. Cloth \$3.00.

We would consider this one of the must books. After one reads the first chapter the easy style and the rapid flow of ideas expressed with cleverness and wit insure that one "must" read each following page.

It is a story of man's fight for existence, not always successful against starvation.

Much of our past history is not too pretty.

Captain Ahab of Moby Dick admitted the consumption of human flesh when under the stress of prolonged hunger, the theory being that the cadaver was of more value to the surviving human beings than to the fish. In times of extreme stress of war or famine there have often been cases of cannibalism even among the nations that have a class A rating for civilization. When hunger comes something must be done about it.

The book is well divided in seven parts. One of these is 'Good Food—Good Health,' another 'Come and Get It' then some of the more usual type of titles such as 'Economic Aspects' and 'The Future of Food.'

The material presented could only be compiled from a very large range of reading from many sources. The information is right up to date and accurately presented so as to be of value to the physician as well as to the layman. It is without question the best thing of its kind a presentation of the relation of foods to man's well being and his future and highly recommended without reservation to doctor and patient.

The purpose of this book is given in the authors' dedication 'To our respective fathers who might still be alive if nutritional knowledge had been complete during their lifetimes.'

The authors have presented in a delightful and compelling way all the ideals that those of us have who believe that man can improve with proper choice of diet

P C ESCHWEILER

Handbook on Nasal Accessory Sinuses
By Frank L Alloway, MD Duodecimo of 121 pages, illustrated Kingsport, Tennessee, Kingsport Press, Inc, 1937 Cloth, \$2 00

The major portion of this booklet is devoted to the diagnosis and management of maxillary sinusitis. Sketchy reference is made to the anatomy, pathology and diagnosis of sinus disease. Osteomyelitis of the skull and chiasmal tumor in relation to sinuses are discussed in a few paragraphs.

The author has attempted to cover an expansive field of considerable importance in a few pages, referring primarily to his personal experiences in relation thereto. A number of fundamental facts of considerable importance have been briefly and simply presented.

The general practitioner will find here an interesting review of a subject with which he should be better acquainted.

HARRY MEYERSBURG

Illness Its Story and Some Common Symptoms A Guide for the Layman By S Henning Belfrage, MD 16mo of 173 pages New York, Oxford University Press, 1938 Cloth, \$1 50

This little book is intended as a layman's guide to illness. The first part is given over to a more or less general discussion of health in relation to nutrition, mental hygiene and exercise. The second part consists of a list of symptoms and their relation to specific illnesses. The listing is rather haphazard, varying from bad breath to asthma. For the most part the author's advice is sound. He does not encourage self-medication, although he does give a few simple first aid rules. Dr Belfrage is definitely of the old school in his attitude toward mental disturbances. He advocates cold water as a corrective for hysterical seizures and uses such vague terms as "nervous weakness."

MILTON PLOTZ

Treatment of Some Chronic and Incurable Diseases By A T Todd, MRCP Octavo of 203 pages Baltimore, William Wood & Company, 1937 Cloth, \$3 00

In the introduction the author makes a point of not considering any disease as one of a certain part of the body anatomically, but relates in each chapter a train of symp-

toms affecting one or more organs because of defects or infections of some other part. Etiological classification, he thinks, is not helpful.

In the treatment of diabetes mellitus he believes in the use of synthalin rather than insulin. His therapy of various diseases is anything but the usual one. Thyroid, one tenth of a grain once or twice a day is often used. Some of the prescriptions contain six or seven ingredients. While there is some useful information furnished in the book, it is certainly not a good guide to treatment.

WILLIAM E MCCOLLOM

Practical Methods in Biochemistry By Frederick C Koch Second edition Octavo of 302 pages, illustrated Baltimore, William Wood & Company, 1937 Cloth, \$2 25

Although prepared as a laboratory manual to accompany Dr A P Mathews textbook, this third printing in four years indicates its value to biochemical students. Necessary additions, such as the urea clearance test and certain quantitative determinations in serum, as well as deletions of repetitious material have resulted in an up-to-date and improved edition. Beyond student use there is much in the fifty-five page appendix, at least, to recommend its employment as a reference in many clinical laboratories.

IRVING M DERBY

The Practice of Urology By Leon Herman, MD Octavo of 923 pages, illustrated Philadelphia, W B Saunders Company, 1938 Cloth, \$10 00

This practical single-volume book is well written, well arranged and well illustrated. The reviewer would expect just such an excellent work to come from the pen of the able Dr Herman.

The book, while intended particularly for the practitioner and surgeon should prove interesting, instructive and useful to every urologist. A wealth of valuable material represents the personal experience of an able authority. Controversial subjects are given special consideration. The first four chapters of over a hundred pages are devoted to diagnostic procedures and instruments. Considerable space is also given to venereal diseases and their management. The author has followed the more modern method of listing references at the end of each chapter.

The volume is a tribute to the advance of modern urology.

AUGUSTUS HARRIS

ORDERING BOOKS

As a service to our readers, books listed in this issue or any other medical book in print may be ordered through T H McKENNA INC 878 Lexington Avenue New York City Phone BUtterfield 8-6603

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SULFANILAMIDE THERAPY

Results at the Infants' and the Children's Hospitals (Boston)

BENJAMIN W CAREY JR, M.D. *Boston, Mass*

From the Infants and the Children's Hospitals (Boston) and the Department of Pediatrics and the Department of Bacteriology and Immunology of the Harvard Medical School

I wish to present results with the use of the newer chemical substances sulfanilamide and Prontosil, in the treatment of certain types of infections at the Infants' and the Children's Hospitals, Boston (Chart I)

The earlier studies were conducted using prontosil alone. The use of prontosil soluble and para-aminobenzenesulfonamide, or sulfanilamide, as the Council of Pharmacy and Chemistry of the American Medical Association has termed it quickly followed. This was especially true after Trefouel and associates¹ and Buttle and coworkers² obtained indications that para-aminobenzenesulfonamide a part of the prontosil molecule, was the pharmacologically effective portion. Many investigators believe sulfanilamide to be more efficacious than the prontosil compounds and it appears to be established³⁻⁵ that sulfanilamide is formed from prontosil by reduction *in vivo*.

As long ago as 1919 Heidelberger and Jacobs⁶ described the bactericidal effect of para sulphonamide azo compounds but sixteen years elapsed before Domagh⁷ tried similar compounds in the treatment of bacterial infections in animals and reported the cure of B hemolytic strep-

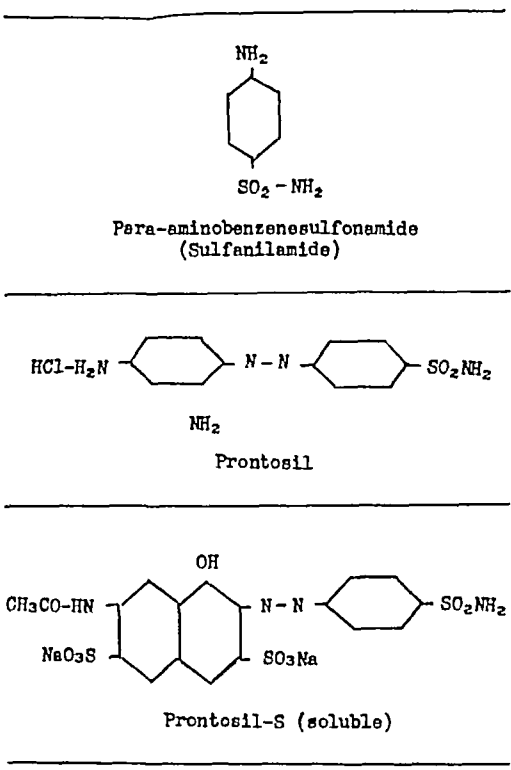
tococcus infections in mice with prontosil. These results were verified by French investigators^{8, 9} and by Colebrook and Kenny in England.¹⁰ The German literature soon contained favorable reports on the use of prontosil in the treatment of B hemolytic streptococcus infections in humans.¹¹⁻¹⁸ Colebrook and Kenny¹⁰ reported their results with this drug in the treatment of puerperal infections giving the impression that prontosil exerted a beneficial effect and that the mortality rate had been lowered. Long and Bliss,¹⁹ in Baltimore, reported a group of patients with B hemolytic streptococcus infections treated with these drugs. Demonstrations of the destructive action of these chemical substances against other types of organisms have been published.^{2, 19-21} It was found that mice could be protected against infection by the meningococcus and the application of this discovery to the treatment of human infections quickly followed. Favorable results in the treatment of infections caused by the gonococcus,^{22, 23} the gas bacillus (B. Welchii)²⁴ the type III pneumococcus,²⁵ and the colon bacillus²⁶ have been reported.

The mode of action of sulfanilamide is not definitely known. It has been suggested that the drug acts by preventing capsule formation⁸ by a direct bacteri-

The Prontosil and sulfanilamide (Prontylin) used in the treatment of these patients was donated by the Winthrop Chemical Co., Inc.

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CHART I



tion of these drugs varies considerably, depending on the individuals who are pre-
scribing them. The present plan of treat-
ment at the Infants' and the Children's
Hospitals (Boston), includes suggestions
made by Long and Bliss¹⁹ and revisions
made by us following the publication by
Marshall²⁷ of the method for estimating
the concentration of sulfanilamide in
blood and urine. These revisions were
made in order that a concentration of
10-15 Mg % of sulfanilamide in the blood
of the patient might be maintained during
the acute stage of the disease (Table I).
If prontosil and sulfanilamide were ad-
ministered simultaneously, the dose of
each was reduced one-half. One to three
days after disappearance of the organ-
isms causing the infection and improve-
ment in the condition of the patient, the
amount of the drug was usually reduced
about one-half from the estimated main-
tenance dose and continued for one-two
weeks if no untoward reactions to the
drug were observed.
The toxic effects attributed to sulfan-
ilamide have included cyanosis, nausea
and vomiting, fever, lassitude and head-

TABLE I—PLAN OF DOSAGE FOR SULFANILAMIDE AND PRONTOSIL

	0.8% in 0.9% NaCl sol				
	Oral		Subcutaneous	Intrathecal	Intramuscular
	Initial	10 gr per 20 lbs	Initial 100 c.c. per 20 lbs	10 c.c. less than volume of cerebrospinal fluid withdrawn	
SULFANILAMIDE	Maintenance	1 gr per lb per 24 hrs divided in 4 or 6 doses	Maintenance 100 c.c per 40 lbs every 8-12 hrs		
PRONTOSIL-S					1 c.c per lb per 24 hrs divided in 4 or 6 doses

dal action,²⁰ or that the phagocytic activity of the polymorphonuclear leukocytes and monocytes is concerned.¹⁰ It appears from *in vitro* experiments that sulfanilamide has a direct action on certain bacteria and that the multiplication of hemolytic streptococci is inhibited by the drug. Although this may occur *in vivo*, the streptococci may also be damaged, permitting phagocytosis to occur. It is our belief from observations made on patients with B hemolytic streptococcus infections that phagocytosis is concerned in the reaction but to date definite proof of the exact mechanism is lacking.
The dosage and method of administra-

ache, hematuria, hemolytic anemia, acidosis, and skin rashes.^{10,10,28-30} Agranulocytosis has been feared but no published report has included it as a toxic reaction to the drug. Cyanosis of the lips and nail-beds has been the commonly observed reaction and considerable discussion has occurred whether the cyanosis was due to the formation of sulphhemoglobin or methemoglobin. A recent report by Marshall and Walz³¹ suggests that the cyanosis and dark color of the blood are due neither to sulphhemoglobin nor to methemoglobin, but possibly are due to the presence of a black oxidation product of the drug which stains the red blood

cells Harvey and Janeway²¹ have reported the characteristic symptoms and laboratory findings in patients with hemolytic anemia thought to be a result of sulfanilamide administration. The hemolytic crises observed in their patients closely resembled those in the cases of Lederer's anemia reported by O'Donoghue and Witts.²² Hageman and Black²³ have described the symptoms in a group of patients with febrile reactions observed during the course of sulfanilamide therapy. A morbilliform rash was observed at the height of the febrile reaction in some of their patients. They suggested that the reaction was comparable to serum sickness as the time interval, fever, and rash were similar for the two conditions.

The summaries of the patients treated with sulfanilamide and prontosil at the Infants' and the Children's Hospitals (Boston) in the past eight months are presented in the following paragraphs.

Septicemia. There were five patients with septicemia caused by the B hemolytic streptococcus all of whom recovered. The septicemia was accompanied by acute arthritis in two patients, by mastoiditis and lateral sinus thrombosis in one by acute otitis media in one, and followed an infection in an arm injured by a clothes wringer in one. In an infant twelve months of age with septicemia and acute arthritis of the left hip cultures of the blood were sterile four days after prontosil and sulfanilamide were started but because of the septic hip sulfanilamide was administered for seventy-eight days. Slight cyanosis of the lips and nail-beds was the only reaction to the drug observed. The other patient with septicemia and acute arthritis had a sterile blood culture twenty-four hours after therapy was started and the temperature was normal three days later. B hemolytic streptococci were cultured from pus aspirated from the right hip on the third day but the patient was discharged well three weeks later. The patient with septicemia and acute bilateral otitis media had a sterile blood culture after receiving sulfanilamide twenty-four hours and the temperature was normal on the third day. This patient had hyperpnea after receiving sulfanilamide for five days and the carbon dioxide combining power of the blood was thirty-seven vol %. The erythrocytes of the blood of this patient dropped from 5,000,000 to 2,000,000 per cu. mm. after receiving the drug for ten days. The patient with septicemia, lateral sinus thrombosis

and mastoiditis had a positive culture of the blood on six occasions in the ten days following the mastoidectomy and ligation of the internal jugular vein. Prontosil and sulfanilamide were given during this time and for five days following the last positive blood culture. The patient with septicemia following infection in the arm injured by the clothes wringer had a positive blood culture on two successive days after admission to the hospital. Prontosil and sulfanilamide were started the third day, the blood culture was sterile and the temperature was normal twenty-four hours after therapy was started. Cyanosis of the lips and nail beds was observed in all the patients of this group.

Meningitis secondary to Mastoiditis. There were four patients with mastoiditis complicated by meningitis. The B hemolytic streptococcus was cultured from the mastoid in all four patients and in two the B hemolytic streptococcus was also cultured from the cerebrospinal fluid. The cerebrospinal fluid became sterile after twenty-four hours of treatment with sulfanilamide. All four patients received the drug intrathecally as well as orally and subcutaneously. The temperature was normal in all patients after the fifth day of therapy. Cyanosis of the lips and nail beds was noted in the four patients twenty-four hours after therapy was started. There were no deaths in this group of patients.

Acute otitis media. There were eight patients with acute otitis media caused by the B hemolytic streptococcus who were treated with sulfanilamide and prontosil. Two required mastoidectomies after adequate therapy with the drugs had been given. One had otitis media associated with scarlet fever and received sulfanilamide for eighteen days. The culture of the discharge from the ear became sterile during the therapy but repeated x-ray examination of the mastoid revealed increasing destruction of the cells and it was necessary to perform the mastoidectomy. The other patient received sulfanilamide for seven days after admission to the hospital and the mastoidectomy was done three weeks later. In three of the other six the otitis media subsided in one week or less after treatment with sulfanilamide was started. In one patient the ear continued to discharge for two weeks in one for three weeks and in one for six weeks. Six of the eight had cyanosis of the lips and nail-beds after receiving the drugs, and in addition one patient was drowsy after receiving sulfanilamide for five days. It does not appear from the results obtained that sulfanilamide is as efficacious in the treatment of acute otitis media as in

other types of infections caused by the B hemolytic streptococcus

Perisinus abscess and Mastoiditis One patient who had mastoiditis and a perisinus abscess caused by the B hemolytic streptococcus was treated with sulfanilamide and recovered. The abscess was incised and drained at the time of the mastoidectomy. Prontosil and sulfanilamide were started immediately following the operation. The temperature was normal after the third day and the patient made an uneventful recovery. Cyanosis of the lips and nail-beds was observed in this patient.

Peritonitis There were four patients with peritonitis caused by the B hemolytic streptococcus, all of whom died. The ages of these patients were two and sixteen months and three and ten years. One had a liver abscess which was incised and drained in addition to the peritonitis, and from which the B hemolytic streptococcus was cultured. Incision and drainage of the peritoneal cavity was done on the other three. The youngest patient was in extremis at the time of operation and died eighteen hours later, receiving prontosil only during this period. The next oldest patient lived two days after the prontosil was started and the abdomen was drained. The patient with the liver abscess received the drugs for two weeks, but finally succumbed. The oldest patient, a girl of ten, received intensive therapy with the drugs for ten days, but developed pneumonia and pericarditis and died six days after the peritoneal cavity was incised and drained. Two of these patients developed cyanosis of the lips and nail-beds as toxic effects of the drugs. It has been suggested that the mortality rate in B hemolytic streptococcus peritonitis might be lowered if incision and drainage of the abdomen were omitted and intensive therapy with sulfanilamide alone used.

Erysipelas There were ten patients with erysipelas who were treated with sulfanilamide and prontosil. Two of these patients died. Seven of the ten were under six months of age and two deaths occurred in this age group. One patient who died had a congenital malformation of the heart which was thought to be the cause of death as the erysipelas was improving at the time of death. The other fatality was a three day old infant with erysipelas and cellulitis arising from the penis following a circumcision. The B hemolytic streptococcus was cultured from the blood and death occurred after twelve days of treatment with sulfanilamide. Septicemia was not observed in the remaining eight patients. In those who recovered, the spread of the erysipelas was

halted within eighteen hours after therapy was started, the lesion of the skin had faded and the temperature was normal by the third day. Seven of the ten had cyanosis of the lips and nail-beds after therapy was started, and in addition one of these had marked hyperpnea after three days of treatment, which promptly disappeared after the drug was stopped.

Vulvovaginitis There were four patients with vulvovaginitis caused by the gonococcus who were treated with sulfanilamide. The vaginal discharge had been present less than a week before the drug was started in two patients, two weeks in the third, and three weeks in the fourth. The therapy consisted only of sulfanilamide by mouth. The vaginal discharge disappeared and no gonococci could be found in a stained smear from the vagina of three patients after less than a week of therapy. One has remained free of symptoms five months later, and the other two, one month later. In the fourth patient the discharge disappeared and the vaginal smear became negative for gonococci after five days of therapy but recurred four days later. The sulfanilamide was continued one month before a negative vaginal smear was obtained. One month later the gonococci again reappeared in the vaginal discharge and another course of sulfanilamide was started. No gonococci could be seen in a stained smear four days later and the smear remained negative during the following six weeks. Cyanosis of the lips and nail-beds was observed in three of the four patients of this group.

Meningococcus Meningitis Six patients with meningococcus meningitis were treated with sulfanilamide. No antimeningococcus serum was administered to these patients. All six recovered and no sequelae of the meningitis occurred. Four of the six patients were under two years of age. The duration of the meningitis before treatment varied from one to five days and the duration of sulfanilamide treatment varied from four to ten days. Only one of the patients received the drug intrathecally. Two received sulfanilamide intravenously. Intravenous administration of the drug does not appear to be advisable unless the condition of the patient prevents the use of subcutaneous injections, as both of these patients developed a febrile reaction and one was drowsy during the entire time of therapy. These reactions seemed to be toxic effects of the drug. It was also noted that the drug was excreted twice as rapidly as it was after subcutaneous administration. Cultures of the cerebrospinal fluid were sterile after twenty-four hours of treatment in all six patients and no recurrences of the menin-

gonococcus in the cerebrospinal fluid occurred. The meningococcus was cultured from the blood in four of the patients. Five of the six developed cyanosis of the lips and nail-beds after 48 hours of treatment. One patient complained of a severe generalized headache after receiving the drug three days and was slightly drowsy with the duration of the headache. The toxic reactions disappeared twenty four hours after treatment was discontinued.

B. Proteus meningitis. One patient an infant six weeks of age, with meningitis caused by the B. Proteus was treated with sulfanilamide. The patient had been dropped while being weighed and the symptoms of meningitis appeared two days later. Treatment was started with sulfanilamide subcutaneously and orally but cultures of the cerebrospinal fluid were positive at all times during the following seven weeks of drug therapy. Signs of hydrocephalus developed after two weeks in the hospital and death occurred nine weeks after admission.

Infections of the Urinary tract. Thirteen patients with infections of the urinary tract were treated with sulfanilamide. The drug was given by mouth in the dosage outlined earlier accompanied by an equal amount of sodium bicarbonate. The purpose of the sodium bicarbonate was to render the urine alkaline to a pH of 7.4. The pH was tested by the addition of two or three drops of phenol red to five c.c. of urine. If the urine assumed a red color, the proper alkalinity had been obtained. The fluid intake of the patient was not changed other than to maintain it at the proper volume for the age and weight. In a few instances it was necessary to increase the amount of sodium bicarbonate to attain the correct alkalinity of the urine. Four of the patients were under one year of age, and the rest were between the ages of two and twelve years. All of the patients were females except one a male infant three weeks of age. The infection had been present less than a month in nine of the patients, present six months in two of the patients, four years in one and ten years in another. In every patient the organism obtained from a culture of the urine was the colon bacillus. In eleven of the thirteen patients a culture of the urine was sterile after two to six days of sulfanilamide therapy and the urine sediment had become normal within one week of treatment. In one patient a female infant seven months of age the colon bacillus was still present after four weeks of therapy. A culture of the urine of one patient was sterile after three days of treatment but symptoms recurred five days after the drug was discontinued. A second course of sul-

fanilamide was given and four days later a culture of the urine was sterile. Eight days after the second course of the drug was started the patient developed a temperature of 103° F, and a morbilliform rash appeared. The fever and the rash were thought to be toxic manifestations of the drug as they disappeared rapidly after the drug was discontinued. Return visits to the clinic have been made by seven of these patients from two to six weeks after discharge from the hospital and all seven have remained symptom free and have had negative urine sediments. Nine of the thirteen patients developed cyanosis of the lips and nail beds during treatment with sulfanilamide (Tables II-III).

TABLE II—RESULTS OF SULFANILAMIDE THERAPY

	Number of Patients	Recovered	Died	Improved	Unimproved
B. hemolytic streptococcus infections.					
1. Septicemia	5	5	0		
2. Meningitis secondary to mastoiditis	4	4	0		
3. Peritonitis secondary to mastoiditis	1	1	0		
4. Erysipelas	10	8	2		
5. Peritonitis	4	0	4		
6. Acute otitis media	2			3	5
Gonococcus infections					
1. Vaginitis	4			3	1
Meningococcus infections					
1. Meningitis	6	6	0		
B. Proteus infections					
1. Meningitis	1	0	1		
B. coli infections					
1. Urinary tract	13			11	2
Total	50	49	7		

TABLE III—TOXIC REACTIONS TO SULFANILAMIDE THERAPY

	No. Cases
Cyanosis	43
Fever	4
Headache and drowsiness	3
Acidosis	2
Anemia	1
Rash	1
Total	56

Summary and Conclusions

The results of treatment with sulfanilamide and Prontosil at the Infants' and Children's Hospitals have been presented. This group included thirty two patients with infections caused by the B. hemolytic streptococcus four with gonococcus vulvovaginitis, six with meningococcus meningitis one with B. Proteus meningitis,

and thirteen with infections of the urinary tract caused by the colon bacillus

From our experience and the reports of others, the value of these chemical substances in the treatment of infections caused by the B hemolytic streptococcus, the meningococcus, and the gonococcus seems to be established

The efficacy of sulfanilamide in the treatment of urinary tract infections caused by the colon bacillus is suggestive but insufficient evidence is available from which to draw definite conclusions

A conservative attitude should be adopted in forming conclusions as to the value of these drugs in the treatment of

infections caused by organisms other than the B hemolytic streptococcus, the meningococcus, the gonococcus, and the colon bacillus until sufficient laboratory evidence of their worth is obtained

Certain toxic manifestations of sulfanilamide and Prontosil have appeared in patients at the Infants' and the Children's Hospitals in Boston, who were treated with these drugs but no reactions have been observed which were especially alarming. However, it should be remembered that such reactions may occur and care should be exercised in the use of these drugs

300 LONGWOOD AVE.

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IT'S THE 'COST OF HIGH LIVING'

With the statement that "from the looks of things it isn't the lack of medical care but rather too much of other necessities with the luxurious that prevent the family bank-roll stretching far enough" *The Milwaukee Medical Times* cites these figures

In the United States forty-seven per cent of all families own their homes, 49.6 per cent own automobiles, 51.8 per cent have telephones, fifteen per cent have electric refrigerators, 50.3 per cent have vacuum cleaners, 41.3 per cent have saving accounts, thirty-four per cent of the automobiles are owned by families with incomes of less than \$20 per week, 55.5 per cent by families with incomes of less than \$30 per week, 73.1 per cent by families with incomes of less than \$40 per week, 88.9 per cent by families with incomes of less than \$60 per week, and two

per cent by families with incomes of \$100 a week or more

Also it is pointed out that it has been estimated that \$180,000,000 is spent annually on slot machine play and about \$400,000,000 on pin ball machines and similar devices

No one begrudges families their automobiles, homes, telephones, vacuum cleaners, etc., or pocket money with which to spin the dials of slot machines (of course you can't beat 'em), but there does seem to be something wrong some place. It would seem as if a good many families who now claim that they are unable to meet ordinary medical costs could do so readily if they would simply inventory the family budget and lop off a few unnecessary (although desirable) items now being purchased on "easy credit" plans

PRIMARY CARCINOMA OF THE LIVER

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This communication is the report of a study of twelve cases of primary carcinoma of the liver met with at autopsy at the New York City Hospital from May 1, 1911 to May 1, 1937.

The total number of autopsies performed during this period was 4906. This gives us therefore a percentage of 0.29 for primary liver malignancy. Our figures are within the average reported by observers dealing with European races whereas in Orientals and Africans the percentage runs much higher. Yanagita¹ finding it as high as two per cent in the Japanese. 161 cases of secondary carcinoma of the liver were found in this period making the ratio of primary to secondary one to 135.

The histories of two cases were destroyed so we will have to confine our clinical resumé to the remaining ten. Furthermore three of the ten patients were unconscious during their stay in the hospital, consequently their histories are incomplete.

There were no Orientals in the group although we usually have a good sprinkling of them in the wards. Four of the twelve were black, a higher per cent than the average in the hospital but not enough to be of any significance. There were nine males to three females. This is about what other writers have found and is also the usual sex ratio in series of cirrhosis.

The youngest case was thirty three years old and the oldest seventy four. The average was fifty seven and the greatest number (six) occurred in the fifties. In this respect there was little difference from secondary carcinoma of the liver or cirrhosis.

We cannot say that alcohol was prominent in our cases. Three denied its use, one was an occasional beer drinker, one drank moderately, and only one admitted excessive indulgence. Lues likewise played a minor part. There was one known to be positive and five negative.

There was one history of possible previous hepatic disease. Several stated definitely they had been free from any liver complaint, three were unable to give histories, and the tenth who gave a good history made no mention of it.

In the seven histories there were statements referable to weight loss. Observers state it frequently happens that the cancerous tissue grows so fast the patient actually gains weight. On admission one was well-nourished and well-developed, but died about six weeks after his arrival. He had become so weak after a month that a laparotomy was cancelled and a transfusion was given instead. Two cases entered the hospital emaciated. One died the same day while the other died in coma forty days later after more weight loss. Four cases noted considerable losses before entrance. One had lost fourteen pounds and was then poorly nourished. He died in coma one month later after a steady downhill course. One had a rapid onset one month before admission with marked loss of weight. One stated he had lost twenty five pounds in two years and another lost thirty pounds in twelve months. The other three cases were *a priori* arteriosclerotic. One sixty-six years old gave a poor history, looked chronically ill and died two days after admission. He was noticeably poorly nourished. One was an elderly arteriosclerotic who came in with a hemiplegia and apparently died an arteriosclerotic death in eight days. The third was a senile woman who gave the appearance of having lost weight. She was in the hospital $3\frac{1}{2}$ months, her death was more arteriosclerotic than hepatic.

Extreme weakness has been mentioned as an outstanding symptom in primary carcinoma of the liver. Seven of the ten in our group showed this condition.

Gastrointestinal symptoms were not obtained in four cases. One of these had no gastric complaints although he was sick for three months. Another was in

the hospital for seven months without giving any symptoms referable to the gastrointestinal tract. There were two cases that had only mild indigestion. One had no early signs but had diarrhea with vomiting of coffee ground material late. One gave no history of early gastrointestinal symptoms but had occasional right upper quadrant pain toward the last. One at the outset had epigastric pain that appeared when the stomach was empty and was relieved by eating. Later he complained of great discomfort after food and frequently vomited coffee ground material.

Jaundice was definitely absent in four cases and not stated in one. It was mild in two and marked in three. Others have found about the same proportion in their series. Ascites occurred at approximately the same rate. There were four negative reports and one case was not stated. In three it was marked and in two it was slight.

Tenderness was recorded in only two cases. The liver was not tender in two cases and in six it was not recorded. Seven livers were recognized as being enlarged, one was negative, and one was not stated. Six were hard, several stony hard, while four were unreported. Nodules were found in four, none in one, while there was no report on five. The spleen was not felt in any case.

Several authors state that a low grade temperature and leukocytosis are common findings and a valuable guide in the diagnosis. We could not say that from our cases. One ran a low grade septic temperature between 100 and 104° F. Leukocytosis occurred in three cases. It was 14,000, 19,400, and 11,000 respectively.

Edema of the ankles was reported in three cases. In three it was stated as not found and in the remainder there was no notation.

The duration of the condition was not stated in three cases. One ran sixteen months, one thirteen months, one eight months, one five months, one four months, one 2½ months, and one five weeks.

In one case an antemortem diagnosis of primary carcinoma of the liver was made. It was suggested in another. One was thought to be a carcinoma of the head of the pancreas with metastases to the

liver. One was regarded as secondary carcinoma from unknown sources. Two were thought to be luetic cirrhosis. Three cases were diagnosed simply as arteriosclerosis.

Gross Pathology

In ten cases the weight of the liver was given. In nine of these, there was enlargement. One was normal, 1350 Gm. Five were twice normal and four were three times the normal. One case was "markedly" enlarged. Therefore none of the livers were shrunk. The enlarged liver was overwhelming in predominance and the extremely large liver was seen.

Using the gross classification of solitary nodular, multiple nodular, and diffuse, we found two of the solitary nodular, seven multiple nodular, one diffuse, and two of a mixed nodular and diffuse. It would seem from this that the multiple nodular type was the most common, that it occurred in all cases except of the solitary nodular group and that the diffuse type represented a stage of the multiple nodular type.

Umbilication was present in nine cases. In this series it was not uncommon, occurring in over half. It seems to occur more frequently in our group than in others in the literature although it does not appear as frequently as in secondary carcinoma.

There seemed to be very little predilection between the right and left lobe. In eight cases it was in both, in two in the right, and in two the left. Both of the solitary nodules however were in the left lobe.

It was reported by Brulé² that a fixed liver was a strongly suggestive point in the diagnosis. While the histories have little to say about this point, there are references to adhesions in the gross pathological reports. Nine cases showed no adhesions. The remaining three were adherent to the diaphragm, one to the pre-vertebral tissue. Some of these were also adherent to the spleen, intestines or gall-bladder region.

The extrahepatic bile ducts were normal in five cases and not recorded in four. In one they were slightly dilated. In two they were surrounded and constricted by neoplastic masses at the hilum.

Jaundice was stated as being absent in six cases. It was present in four and not noted in the other two. Ascites was present in a somewhat larger proportion. There were eleven that showed fluid in the peritoneum, one being a hemoperitoneum.

It is generally noted that the metastases are uncommon in primary carcinoma of the liver. In five of the twelve, metastases were absent. In the remaining seven the commonest finding was enlarged lymph nodes, present in four. In one of these, the prevertebral nodes were concerned and in another the posterior mediastinal nodes. Metastases were found in the lungs three times, in the pleura two times. In one they were found in the adrenal and in another the kidney. The hepatic vein contained a mass in two cases while the portal vein and pulmonary artery were each involved once.

It was quite surprising to find the spleen within normal limits in eleven of the twelve cases. In the clinical examination, not one spleen was felt.

Histological Anatomy

The importance of cirrhosis as an associated condition has been greatly stressed. In our series the gross specimens showed considerable variation. In seven cases the livers were markedly cirrhotic, in one the process was very irregular in distribution, in two the cirrhosis appeared slight, and in two none was evident. Histological examination, however, showed cirrhosis in everyone of the twelve cases. The characteristic change in architecture expressing itself as an alteration from lobules into nodules could be demonstrated in each liver including those which gave no gross evidence of cirrhosis. In one case the architectural change was more prominent in the region of the malignancy.

The neoplastic changes were of two types, one of the liver cell and one of the bile duct. Five of our cases were liver cell carcinomas and seven were of the bile duct variety. This is somewhat different from other reports but may not be of significance because of the limited number of cases in this series. The liver cell type was characterized by the architectural pattern of a nodule with cords

of cells and a prominent sinusoidal bed and more or less prominence of Kupffer cells. The bile duct type exhibited duct formation lying in a dense connective tissue which gave the appearance of the perilobular fibrosis of cirrhosis. While it was usually easy to determine the type, there was one case where such a classification was more difficult. The malignant nests were present in dense fibrotic areas, simulation of the nodular architecture was absent and there were no Kupffer cells. Although true duct formation likewise was not seen all the other features corresponded to the criteria of duct carcinoma. We found five cases, three predominantly of the duct type and two predominantly of the liver cell type that showed transitions from one type to the other.

It seemed that the cases with the least gross cirrhosis were of the bile duct type. We also noted that two of the bile duct carcinomas showed other changes. In one there was a transition from the high columnar epithelium to squamous epithelium progressing to pearl formation. In the second the dense fibrosis had so compressed some of the ducts that the epithelium had assumed a spindle shape.

Discussion

It would seem that among occidental people primary carcinoma of the liver is comparatively rare. Its distribution however is general and therefore it may be encountered at any time. If one deals with certain groups of Orientals it will be found as much as ten times as frequently. We note that all our cases are in the older age group. We also note that there is a marked absence of the commonly accepted causes of liver disease either acute or chronic. There was only one instance when an etiological factor could have been accused. In case three the man gave a history of an acute hepatitis following exposure to hydrochloric acid fumes which progressed into a subacute form and then into a true cirrhosis. We were surprised to find so little syphilis present and such a lack of alcoholic addiction.

While there was considerable evidence of loss of weight and of extreme weakness it did not seem to us to be different

from that of secondary carcinoma of the liver. We could not say that the rapidity of the disease was any greater than that of the secondary form.

Clinically our cases fell into two groups. The larger one, eight in number, showed at some time liver involvement although one of these entered the hospital as a decompensated cardiac case, was classified as syphilitic aneurism, and treated as such throughout his hospital stay. The other group—two cases—gave no clinical evidence of liver disease. They were listed as arteriosclerosis and the carcinoma of the liver was not found until the post-mortem had been performed.

Jaundice was found in about half the cases. It has been remarked that the livers so completely studded with abnormal growths, show comparatively little jaundice. This fact helps to shed light on the mechanism of jaundice formation. We generally accept today that acute hepatic disease is accompanied by jaundice when a certain degree of injury is reached. This is believed to be due either to an obstruction to the flow of bile or to an injury to the cell cords in the lobule which allows the bile to pass into the perisinusoidal lymph spaces and so gain the general circulation. In chronic liver disease, jaundice is not so commonly found. In Laennec's cirrhosis, which constitutes the greatest group of chronic cases, we find little or no jaundice except perhaps in the terminal stage. The change in the architecture as found in these cases evidently creates no pressure on the bile duct or the bile duct radicles, nor does it predispose to the seepage of the bile into the perisinusoidal lymph spaces. In secondary carcinoma of the liver, jaundice is a common symptom. Here the jaundice is generally accepted to be obstructive in type with the obstruction due to pressure of enlarged glands in the transverse fissure of the liver. Biliary cirrhosis, which constitutes but a small percentage of chronic liver conditions, invariably presents jaundice. This is due to obstruction and infection of the bile ducts.

In primary carcinoma we have what might be considered a combination of Laennec's cirrhosis and carcinomatous growths in the organs. The behavior of the cirrhosis towards jaundice is modified

by the behavior of the neoplastic masses. The finding of metastases in the draining lymph nodes, including those of the transverse fissure of the liver in a number of our cases, points towards the influence of the carcinoma on the jaundice. The jaundice in these cases is due then very largely to extrahepatic obstruction.

The ascites which occurs in about the same number of cases as the jaundice may have been brought about by the pressure on the portal vein in the transverse fissure. However, the presence of cirrhosis suggests a competent cause of ascites. Practically all cases of Laennec's cirrhosis will develop ascites if they do not develop some intercurrent condition. The change in architecture which interferes with the circulation in the intrahepatic portal vein radicles is the probable reason for the transudation.

The comparative absence of gastrointestinal symptoms makes one feel that we cannot depend on them as an aid in the diagnosis. It also suggests that a liver may be silent and still harbor a primary growth. Further one might deduce that a primary lesion can occur in a liver that is but slightly damaged.

In those cases where the liver gave objective signs we note that it was markedly enlarged. The gross examination of the liver bears out this finding and added to this was the fact that all the livers but one were found to be greatly enlarged. This enlargement could be accounted for by the carcinomatous nodules which in most cases were widely distributed throughout the liver and which are known to grow with great rapidity. Evidently the neoplastic masses have little difficulty in pushing out the substance of the organ as they grow and this seems to be true in the advanced cirrhosis as well as in the noncirrhotic.

Hard nodules are, of course, very reliable guides to carcinoma of the liver. When found they are valuable in the diagnosis. There was no evidence of a recognizable pedunculated solitary tumor in our series as has been reported several times.

There are a number of reports in the literature of finding the liver enlarged upwards into the thorax. The x-ray shows a high position of the right diaphragm and a dome-shaped line directly

above the liver. We did not get any history that had such an x-ray done but to us it seems worthy of investigation.

The clinical diagnosis of primary carcinoma of the liver is difficult. In our series one case was diagnosed antemortem and in one it was suggested. While we appreciate it has been found in childhood and early adult life, our cases are limited to the later decades. It is more frequent in males. It gives no suggestive history. An enlarged hard nodular liver with no evidence either from physical examination or x-ray studies, of any primary cancer outside the organ is strong presumptive evidence. The presence of cirrhosis adds weight to the possibility. Such a picture showing a very rapid course with great emaciation and weakness is the commonest form. There is a type reported frequently in the literature where a sudden hemorrhage into the peritoneum comes on accompanied by severe pain and prostration. We did not see any of these in which the clinical history was available. Not one of these signs or symptoms may be present and the diagnosis then can be made only at autopsy.

The pathological diagnosis is relatively easy. The presence in the liver of a malignant growth where a primal site in other organs cannot be demonstrated, is strong presumptive evidence of primary carcinoma of the liver. When it is associated with definite gross evidence of a cirrhotic process this possibility is strengthened. If the tumor masses show marked tendency to umbilication origin from the liver cell is probable. If the masses tend to be solid with umbilication limited or absent the tumor is more liable to be of the bile duct type. A tendency to involve the vein with malignant growth suggests a liver cell variety while metastases to the hepatic lymph nodes and freedom of extension into the vein suggests one of the bile duct.

Histological characteristics are typical. The liver cell type reproduces the liver nodule while the bile duct carcinoma reproduces the duct lying in dense connective tissue.

The pathogenesis of primary liver cell carcinoma is not established as yet. Two possibilities have been advanced. Because it has been found in infancy and because

it occurs as solitary nodules it has been thought to be malignant transformation of adrenal rests. We are not inclined to this hypothesis. It seems to us that if this were the case, one would find a more frequent occurrence of these rests in routine autopsies.

Because cirrhosis is so closely associated with this form of liver cancer it has been suggested as a predisposing cause by some and as a result by others. One of our cases a cholangiocarcinoma showed the cirrhosis limited to the neighborhood of the carcinomatous mass. This however, was the unusual finding. All the other cases were markedly cirrhotic even in the areas that were free from neoplastic changes. We concluded largely from this that the cirrhosis preceded the carcinoma.

We observed definite evidence of transition from the nodule to the liver cell carcinoma and from the proliferating bile duct to the bile duct carcinoma. This seemed to be quite consistent with the present day knowledge of cirrhosis. It is generally believed that the parenchymal cell is the most vulnerable structure in the liver that it becomes necrosed when extra amounts of hepatic toxins are brought to the organ and that it regenerates rapidly and indefinitely to make up for losses. When the injury is great enough there is a loss of a large number of the cells of the lobule and after autolysis occurs the lobule collapses. The biological urge to reproduce enough cells to replace the losses now begins and the cells reproduce rapidly but are hampered in their growth by the collapse and now form a nodule. At the same time the parenchymal cells reproduce the cells in the bile ducts proliferate. This is quite an active process with an increase in the number of ducts either apparent or real growing throughout the connective tissue.

It would appear that this proliferation of the bile ducts is a reversion to the embryological procedure. In fetal life it is generally conceded by embryologists that the parenchymal cells originate from the duct cells. After birth however this connection is not positive. A number of observers believe that it still holds true and there are some facts that are in its favor. Because the cells of the bile duct which are in apposition to the periphery

of the lobule become active and form a bulbous end, and because all growth of the parenchymal cells occurs adjacent to these, it is held that there is a transition from one to the other. Many careful observers however, have been unable to find any of these transitional forms. We feel that there is no transition between these two forms of cells. We are strongly influenced in our belief by the behavior of the bile ducts in the case of Whipple³ which showed many proliferating ducts which had entered the nodule to a considerable distance without producing any parenchymal cells.

In cirrhosis there is regeneration of the parenchymal cells with nodule formation and, at the same time, proliferation of the bile ducts. Cirrhosis, in the majority of cases, is a continuous process of loss of parenchymal cells with regeneration of new ones to replace those destroyed. The two points where the greatest reproductive activity occurs is where we find our two types of primary carcinoma of the liver. It would seem that the cancer was associated with the regenerative function of the liver and because there is a continuous regeneration under abnormal conditions, one would be justified in believing that the regenerative function was altered by the cirrhosis and brought about a carcinomatous growth.

The question of unicentric or multicentric origin of primary carcinoma of the liver is of interest. In the case of the solitary nodular form, the evidence is strong for the unicentric origin. However, in the multiple nodular form the picture points strongly toward the multicentric origin. The case quoted by Counsellor and McIndoe⁴ presents a definite evidence to prove this conception. In our cases it was more difficult to be certain of multicentric origin. In some of the liver cell carcinomas, however, the histological evidence pointed strongly to the multicentric origin. At present we believe that either type of origin may occur.

Metastases were more frequent in our cases in the liver cell than in the duct type and tended to be almost exclusively in the lungs. In the duct carcinomas the metastases were largely lymphatic and much more infrequent, occurring in one-third of the cases, in contrast to two-thirds of the liver cell type. The liver cell type of carcinoma tends to metastasize through the blood stream, the duct carcinoma through the lymphatic channels. There were single cases in each group that showed additional metastases similar to those of the other type.

Conclusions

We have presented twelve cases of primary carcinoma of the liver. The histories of ten have been reviewed. The pathological findings, both gross and microscopic, have been recorded. We were unable to recognize any characteristic clinical picture in this series, neither was any common etiological factor found. An enlarged liver was the common finding, whereas the spleen was enlarged only once. This was of special interest as all our cases showed cirrhosis. Although all our cases pointed toward multicentric origin, we believe it may also occur in a unicentric manner. Metastases were not common but occurred more frequently in the liver cell type where they were found almost exclusively in the lungs. The liver cell type tends to metastasize through the blood stream while the bile duct carcinoma tends to metastasize through the lymphatic channels.

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Dr Paul B Jenkins was named president of the N Y York State Society of Industrial Medicine to succeed Dr Edgar A VanderVeer on November 3 at a meet-

ing in Albany. Other officers elected are executive secretary, Dr Frank E Redmond and treasurer, Dr Raymond C Almy.

SYSTEMIC SARCROIDOSIS

Report of Case with Coincident Thrombocytopenic Purpura

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The purpose of this contribution is to emphasize the importance of sarcoidosis as a recently recognized clinical picture masquerading as tuberculosis, syphilis, and lepra. Very often when the systemic involvement is localized in the upper respiratory organs, as in this case, the mistaken diagnosis of laryngeal tuberculosis may be made, notwithstanding the fact that the diagnosis and prognosis of the two conditions are widely different.

At the turn of the century, Boeck described a new clinical picture under the name of "multiple benign sarcoid (lupoid) of the skin." These sarcoids had in reality, nothing in common with true sarcoma, resembling it neither in gross appearance, histologically, nor in its clinical course. The name *sarcoid* was derived from two Greek roots meaning 'flesh' and 'form'.

Internists are now concerning themselves with the systemic manifestations of a group commonly classified as *sarcoidosis*. Included in this group are Boeck's and Darier's sarcoids and many others*.

It was Boeck¹ who first established a morphological entity which he described under the name *sarcoid* the essential morphological feature being a group of nodular lesions. However it soon became apparent that this concept of the eruption was not sufficiently inclusive, and a subcutaneous variety referred to as the Darier Roussy sarcoid gained recognition within a few years. Boeck² recognized that the lymph nodes and the lungs might be involved and Kuznitzky and Bittori³

described in detail the forms of the pulmonary lesions that might occur. Kreibich,⁴ Jungling,⁵ Schaumann,⁶ Kissmeyer,⁷ Pautrier,⁸ and many others have described cases of systemic involvement.

The features now recognized as characteristic of this group may be divided into the (1) internal medical aspects, (2) clinical picture, and (3) histological picture.

1 Internal medical aspects. The systemic involvement the possibility of pulmonary tuberculosis coincident with sarcoidosis and the confusion of the diagnosis with syphilis and leprosy make sarcoidosis a disorder of increasing interest from the viewpoint of internal medicine.

Kuznitzky and Bittori³ reported the first case of systemic sarcoidosis in 1915. Since then there have been reports of the disorder with associated lesions of the mucous membranes, bones, lungs and the brain. Goeckerman⁹ reported finding systemic lesions in six of a series of seventeen cases and Nomland¹⁰ in three of a series of six of which three of the four tested gave a positive reaction to tuberculin with focal reactions in two. There have been instances also where systemic complaints antedate the onset of the dermatosis and it is probable that, as the systemic nature of the disease becomes more generally known, systemic lesions will be found in an even greater proportion of the cases.

About ten per cent of the reported cases have had coincident or subsequently developing tuberculosis of the lungs or other internal organs and there is a growing tendency to consider tuberculosis as the etiological agent although this is difficult to prove. One of the problems to be solved in this connection is the negative reaction to tuberculin as an illustration of specific anergy, due to the neu-

* Among these are lupus pernio (Besnier-Tenison), erythema induratum (Bazin), tuberculosis nodularis of the hypoderm (Wende), benign lymphogranulomatosis (Schaumann), angiolupoid (Brocq, Pautrier), ureo-parotid fever (Heerfordt) and osteitis tuberculosis multiplex cystoides (Jungling).

tralization of the tuberculo-pyrine of Eber-Sahl by the anticutin or procutin found in the serum and in the lesions themselves by Martenstein and Noll¹¹

There has never been any absolute proof of the tuberculous etiology of sarcoidosis, although some evidence would seem to point in that direction. Kyrle¹² and Wende have demonstrated tubercle bacilli in sarcoid lesions in only two instances, and continued efforts along this line have failed to confirm these findings.

Experimental studies have shown that the epithelioid cell response—i.e., sarcoid response—may be caused by the presence of lipoids of wax-like substance in the bacilli of tuberculosis. Ray and Shipman¹³ found a similar substance in grass and in colon bacilli, and produced a sarcoid reaction with it. Sabin¹⁴ produced the sarcoid reaction with the lipid fraction of phosphatide, while Krause¹⁵ pointed out that sarcoid formation is the first response to an animal free from tuberculosis (pre-existing or active) to living or dead tubercle bacilli, later altered when allergy to the tuberculo-pyrimides develops. Hence it would seem that sarcoid formation is not a specific response to the tubercle bacilli, but a foreign body reaction.

A study of many recent cases of sarcoidosis shows that it is most usually confused with syphilis and leprosy. Syphilis, a possibility in almost every doubtful dermatosis, can be ruled out by negative laboratory and therapeutic tests. However, Kissmeyer⁷ and Nielsen¹⁶ have pointed out that the bone lesions in sarcoidosis resemble no condition but leprosy, and consider sarcoidosis an infectious granuloma more closely related to leprosy than to tuberculosis. Filho¹⁷ states that the entire sarcoid syndrome may be found in leprosy, including the dermal lesions, lymph node involvement, cystic bone lesions, histologic picture and anergy to tuberculin. Moreover, Murdoch and Hutter¹⁸ point out that even the marbled appearance of the lungs which Longcope¹⁹ considers pathognomonic for sarcoidosis is often found in leprosy.

2 Clinical picture The type of sarcoid most frequently encountered in general practice is *erythema induratum* (Bazin). The broadening of the concept of *erythema induratum* (Bazin) was based

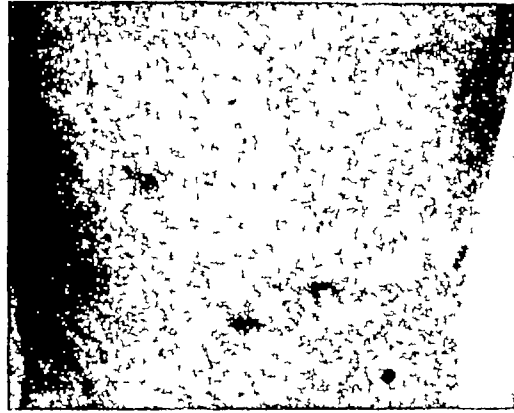


Fig 1 Extensor surface of forearm near elbow, showing five sarcoid nodules in various degrees of development—infiltrative, ulcerative, and scariform with atrophy.

largely upon the clinical picture. Bazin described it as a disorder exhibiting red, indurated, walnut-sized nodules, usually on the lateral aspects of the legs, but in some instances involving also the arms and the face. The nodules are located in the cutis or subcutis and are more or less sharply defined from the surrounding tissues, and tender to the touch. However, Hardy and Hutchinson described under *erythema induratum*, ulcerating nodules, Fournier, Hartung and Alexander found large discoid infiltration, Pinkus, Wolfe and Pringle, distinct orbicular groupings, deviations from symmetrical localization being observed, as well as instances involving only the trunk. Finally, a combination of all these variants was recognized, and in view of the extensive broadening of the clinical picture of this supposed entity, the sharp limits of the whole series of these dermatoses became more vague.

Nevertheless, we find Pautrier,⁸ among others, attempting to distinguish sharply between *erythema induratum* (Bazin) and the Darier-Roussy sarcoid. He holds that *erythema induratum* is confined to younger patients, is localized upon the legs, is of smaller size, and has a more rapid period of evolution. However, even he admits that the clinical appearance of the two supposed entities is so similar that it is often almost impossible to distinguish between them—there is only, as he states, a “nuance” of difference.

3 Histological picture The predominant feature of sarcoids is the naked

epithelioid tubercle with practically no tendency towards necrosis. Vascular participation and a few foreign body giant cells are seen in erythema induratum (Bazin).

Case Report

Patient was a well nourished female, aged thirty nine, Porto Rican, first seen in May 1930.

Chief complaint Eruption on legs

Past history Married seven years. Two healthy children. No miscarriages. Wassermann repeatedly negative. No history of tuberculosis by patient or her family.

Present illness When first observed the patient presented a dermatosis on the legs, consisting of violaceous red indurated nodules tender to pressure, ranging in size from that of a dime to that of a silver dollar and situated subcutaneously. The diagnosis of erythema induratum (Bazin) was suggested.

Two years later the patient consulted the Nose and Throat department because of hoarseness and difficulty in breathing. Examination revealed small granulomatous lesions in the nasal septal mucosa. These were not friable and did not bleed upon palpation. Similar superficial lesions were encountered upon the laryngeal surface of the epiglottis and soft palate. A biopsy specimen taken from the nose was reported as showing the changes of tuberculosis. Examination by the Internal Medical department revealed a hepatosplenomegaly. The dermatosis at this time consisted of bluish red, slightly tender subcutaneous nodules located upon the arms and back.

The lesions showed evidence of a superficial erosion of the epidermis, the latter becoming more pronounced after the administration of neoarsphenamine. The condition was diagnosed as *sarcoid of Darier-Roussy*.

It was also learned that about eight months previously, she had experienced an hemoptysis, and during the past year she had lost about forty pounds in weight. Occasional coughing spells without fever had occurred. It was suggested by the medical department that radiotherapy be used inasmuch as such mucous membrane lesions seem to respond well to this form of therapy.

Present dermatological status There is an eruption on the arms and on the superior aspect of the back consisting of bluish red lesions, nodular to the touch situated in the subcutaneous tissues and extending to involve the superficial layers of the skin with resultant depressions and scar formation. The size of the nodules ranged from that of a pea to that of a hen's egg. Pathological examination of one of the lesions obtained by biopsy revealed evidence of tuberculous granulations resident in the subcutaneous tissue.

The von Pirquet reaction was negative upon two occasions. The Mantoux test showed the following results: 1 1000 000 negative, 1 10 000 slightly positive, 1 1 000 moderately positive. Three weeks later the Mantoux test 1 1 000 was still visible.

By April 1933 the cutaneous lesions were in the process of involution. This result apparently took place under the influence of generalized ultraviolet irradiation.

Treatment between 1932 and 1937 consisted of x ray and radium to the nose, pharynx, and larynx with excellent results, eventuating in a complete final involution of the lesions.

Early in 1937 the patient was treated in another hospital for pneumonia. Tubercle bacilli were not found. Chest x rays showed minor changes but pathognomonic for sarcoidosis. Hilar shadows were increased bilaterally but more on the left. The lung markings were exaggerated leading to an impression of a marble like picture, indicative of sarcoidosis. As a consequence, the heart limits were not as sharply delineated as would be normal. X rays previously taken (1932) had shown no abnormalities.

In August 1937 the patient was admitted to another hospital with epistaxis of one day's duration plus the appearance of black and blue marks over the entire body the latter being of two weeks duration. Numerous scattered petechial hemorrhages were found, as well as many large purpuric spots. The conjunctivae were studded with petechiae. The buccal mucosa, palate and tongue all showed petechial hemorrhages and pur-



Fig 2 Photomicrograph of biopsy from pharynx. Low power. Naked epithelioid tubercles.

puric spots The blood count was as follows R B C 3,960,000, Hb seventy per cent, w b c 4,400 There were no platelets The blood chemistry was normal The sedimentation rate was seventy-five The urine was normal

A sternal puncture revealed little bone-marrow and complete absence of platelets and megakaryocytes Intradermal snake venom test was markedly positive. The patient was given a transfusion of 500 c c of blood, and the bleeding stopped Platelets reappeared in the peripheral blood stream and rose slowly to 128,000 five weeks after admission The white count was normal or slightly diminished throughout. There was a temperature of 101.6° for a few days X-ray studies of the bones revealed no pathological changes Four months later, the blood count was R B C 4,350,000, Hb seventy-eight per cent, w b c 8,600, platelets 320,000

With certain exceptions, the course of this case is quite typical in its general outline, resembling other cases of systemic sarcoidosis presented in the literature by Kuznitzky and Bittorf, Kyrle, Goeckerman, Boeck, and others However, this case is of special interest on account of (1) the association with nasal, pharyngeal, and laryngeal granulomas which responded to radiation, (2) our inability to demonstrate the focus from which the process had disseminated, and (3) the appearance of a complicating thrombocytopenic purpura, the relation of which is not clear in respect to the general condition shown by this patient It is true, however, that occasional examples of thrombocytopenic purpura have been encountered in cases of disseminating miliary tuberculosis We were quite unsuccessful in the treatment of this case with neoarsphenamine and Fowler's solution

The case herewith reported is of interest for the following reasons

1 The case was studied for eight years During the first three or four years, the systemic lesions of the nose, larynx, liver, and spleen were regarded as coincidental to the cutaneous lesions The biopsy report showed changes of a tuberculous nature, but there was no proof of active tuberculosis, and no family nor personal history of tuberculosis

2 The biopsy specimen from the systemic lesion showed the same changes as the cutaneous lesions, naked epithelioid tubercles consisting of a conglomeration

of epithelioid cells replacing normal tissue, with only a slight tendency to necrosis in a few places

3 During the eight years that the case was studied, the disease followed a benign course, with good response to treatment—particularly the pulmonary involvement—quite in contrast to the response of active tuberculosis

4 The skin lesions themselves ranged from erythema induratum on the legs to Darier sarcoid on the upper extremities, with the lesions of the nose, larynx, and pharynx simulating lupus vulgaris

5 The patient presented an hepatosplenomegaly and a thrombocytopenic purpura, the latter being often seen in miliary tuberculosis

6 Unlike most cases of sarcoidosis, our case had a positive reaction to tuberculin, which is found in the majority of adults and is usually considered as pointing to a preexisting tuberculous infection

7 If the process was a tuberculous one, we were unable to demonstrate the primary focus of infection

Summary and Conclusions

A case of sarcoidosis is reported with involvement of the mucous membranes of the larynx, pharynx, soft palate, and also involvement of the internal organs, associated with a complicating thrombocytopenic purpura This patient was observed for a period of eight years, and under appropriate treatment, became free from all systemic lesions

The case presented the clinical appearance of erythema induratum (Bazin) at one time, and of Darier-Roussy sarcoid at another

It is suggested that the differentiation of these various entities upon the basis of superficial differences, according to the morphological school, is confusing rather than helpful, and should be abandoned for the *dynamic* point of view which considers all the supposed entities in the sarcoidosis group to be expressions of the same disorder

The systemic lesions often regarded as tuberculous, cannot be offered as strict proof of the tuberculous etiology of sarcoidosis We can say only that the lesions are tuberculous granulomas, perhaps only foreign body reactions

The tuberculous structure of the lesions

is characteristic of sarcoidosis but not proof of tuberculosis

By the time that the disorder manifests itself as a visible morphological lesion it

is impossible to demonstrate the causative organism by our present methods of staining

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PNEUMONIA

Practical Considerations of Oxygen Therapy—With Special Reference to Home Use

DAVID D. RUTSTEIN, M D, *Albany*

The use of oxygen in the treatment of pneumonia is of the utmost importance in selected cases, but it must not be considered as a specific therapy for the disease. At present only certain types of antipneumococcus serum can be placed in that category. Furthermore, the question of the effect of oxygen treatment on the mortality of the disease has never been satisfactorily answered. The many variables which affect the mortality of pneumonia—e.g. type of infection, bacteremia, age of patient, and the use of other therapeutic agents, in addition to the variables introduced by the different methods of supplying oxygen to patients—make it impossible to even approximate an answer to that question on the basis of existing figures. However, the question of mortality is not the only question of importance in determining the value of oxygen therapy in pneumonia. Insufficient oxygenation of the blood of a pneumonia patient causes changes from the normal physiology which, while not actually so proved, still may reasonably be supposed to be injurious. Furthermore, these changes can frequently be obviated by the proper application of oxygen treatment.

It is not the purpose of this paper to analyze completely the changes in physiology referred to, but rather to approach the problem from the point of view of the indications for oxygen therapy as presented by the symptomatology of the patient. References to the experimental studies underlying these indications will be given. This discussion will demonstrate that oxygen is of value when used upon specific indication.

There is adequate experimental and clinical evidence that oxygen is indicated in any one or combination of the following four symptoms occurring in pneumonia: cyanosis, sustained rapid pulse, sustained rapid respiration, and restlessness or delirium.

Cyanosis which presents itself in the pneumonia patient by the presence of a bluish tinge in the nail beds and often in the lips and face, has been shown to be a manifestation of an increased amount of unoxxygenated hemoglobin in the arterial blood^{1,2} due to the fact that the venous blood is not adequately oxygenated in the lungs. The exact mechanism of the production of this anoxic³ cyanosis in pneumonia is not clear. It probably is the result of a summation of many factors, such as rapid, shallow respirations⁴⁻⁶ (denied^{7,8}), decrease in available lung volume,⁹⁻¹² mechanical factors interfering with oxygen transfer including damage to alveolar membranes,¹³ moisture and exudate in the alveoli,¹⁴⁻¹⁶ and finally the changes in the oxygen carrying capacity of the hemoglobin molecule caused by pneumococcus¹⁷⁻¹⁹. The relative importance of each of these factors has not been quantitated adequately but they probably vary from case to case depending on the nature and the extent of the pulmonary lesion. Furthermore, pneumonia patients usually have fever which increases the basal metabolism, and in turn increases the demand for oxygen.

It should be remembered that one of the many factors which determine the intensity of visible cyanosis is the total amount of circulating hemoglobin.²⁰⁻²² Therefore, patients with anemia may appear to have little or no cyanosis, even though the absolute amount of oxygenated hemoglobin in their arterial blood may be markedly diminished. Usually patients with severe anemia who are suffering from anoxemia in pneumonia have a grayish, leaden appearance which should be considered an even greater indication for oxygen than cyanosis. It may be necessary to give blood transfusions to a patient with severe anemia in order that he may have a sufficient amount of hemoglobin to provide oxygen sufficient for even basal requirements. Such transfu-

sions are given slowly in about 300 c.c. amounts every 12 hours as indicated.

Oxygen therapy relieves the cyanosis by increasing the alveolar oxygen concentration and according to Henry's law* causing a higher concentration of oxygen in the blood. Increased alveolar content will more adequately oxygenate the blood since the insufficiency, as pointed out above, is due to inadequate oxygenation of venous blood in the damaged areas of the lungs. Indeed if oxygen in forty to sixty per cent concentrations is given to such patients, the arterial blood can be shown to have an oxygen saturation that is close to normal in most cases.^{2,10,4}

The second indication for the use of oxygen in pneumonia is a pulse rate sustained above an arbitrary limit of 120 beats per minute. In pneumonia the failure of the cardiovascular system either centrally or peripherally is very often a cause of death. It is therefore of value to keep the pulse rate low and to conserve that system as far as possible. This does not mean that oxygen deficiency is the sole cause of an elevated pulse rate in pneumonia. It has however, been shown experimentally both in normal individuals^{25,26} and in pneumonia patients^{2,27,28} that an increase in the concentration of oxygen in the inspired air will result in a slowing of the pulse. Oxygen therapy, therefore, must be considered of some value in the treatment of this condition.

Rapid respiration (arbitrarily stated by some authorities as being above thirty five per minute²⁹) is the third indication for oxygen therapy. As the respiratory rate increases, breathing usually becomes more shallow and less efficient. Also a rapid respiratory rate requires more effort on the part of the patient than a slow rate and consequently the demand for oxygen is automatically increased. For these reasons, any mechanism which would slow the respiratory rate without interfering with the oxygenation of the blood would be of value. Unfortunately, the evidence of the effect of increased oxygen intake

on the respiratory rate is not as conclusive as it is for the pulse rate. Normal individuals have no change in respiratory rate when the oxygen concentration of the inspiratory air is increased.³ However there is a reduction reported in respiratory rate in about one-half of the cases of pneumonia after oxygen therapy has been instituted.^{2,10,28} and clinically one sees an occasional case where the drop in rate is striking. Therefore even in a patient with no other indication for oxygen except a rapid respiratory rate, oxygen should be tried and if a favorable result occurs should be continued. Other causes of hyperpnea such as upper abdominal distension should of course be treated appropriately when they occur.

The final indication for the use of oxygen is restlessness and delirium. These symptoms probably depend on more than the factor of anoxemia. High fever and the so-called 'toxemia' of pneumonia probably contribute to this mental state. However there is a great deal of similarity between this mental disturbance of pneumonia and that of individuals breathing a low concentration of oxygen over a period of time whether in chamber experiments³⁰ or as result of breathing in high altitudes³¹ where oxygen tension is low. Indeed mental symptoms in pneumonia frequently clear very rapidly when oxygen is given in adequate concentration and the patient often drops off into a quiet and restful sleep. The difficulty here is the practical problem of supplying oxygen to a delirious patient. The constant attendance of a resourceful and tactful nurse is indispensable. If the patient has not improved after a reasonable period of time and continues to thrash around and fight the treatment it is probably better to omit oxygen treatment and rely on the use of hypnotics. In general it is true that the delirious patient tolerates the catheter or cannula method of therapy better than the oxygen tent.

The delirious alcoholic pneumonia patient presents a special problem in that the response to oxygen may not be as definite. This type of patient often presents a complex of mental disturbances which occur in the alcoholic in the absence of pneumonia and for which no adequate explanation is available plus the delirium due to pneumonic disease. However the

*William Henry showed that the amount of a gas dissolved in a liquid is proportional to the pressure of that gas in contact with the surface of the liquid.³² In this case, increasing the partial pressure of the alveolar oxygen will increase the amount dissolved in the blood in the alveolar capillaries.

reports of the breathing of high oxygen concentrations by men and animals under the influence of alcohol³² including a few patients with delirium tremens, would suggest that oxygen treatment is worth trying in such circumstances in the hope of attaining some therapeutic result.

There are several general principles of oxygen therapy which should be followed in order to attain satisfactory results. Since there are no facilities for storage of oxygen in the body, oxygen should be supplied continuously as long as indications for its use are present. Intermittent use is of little therapeutic value. Oxygen should be supplied by a method which will maintain a concentration sufficient to achieve the desired clinical effect, (usually between thirty-five to sixty per cent³³). Finally, oxygen withdrawal should be gradual.³⁴ If the symptoms which prompted the therapy return during or after withdrawal of oxygen therapy should be re-established immediately.

The addition of small amounts of carbon dioxide to the inspired oxygen has been advocated as a routine in the early treatment of pneumonia in an attempt to control atelectasis.^{35,36} As indicated in a recent review of the literature,³⁷ atelectasis of the affected lobe not uncommonly accompanies lobar pneumonia. However, the little evidence that exists regarding the value of such therapy is insufficient to merit conclusions,^{38,39} and the technical details involved make it difficult to carry out this procedure in the home. For these reasons its use as routine treatment does not seem justified. Carbon dioxide should be used in pneumonia only on specific indications for that agent which are uncommon in this disease. A discussion of the use of carbon dioxide inhalations in the prevention of pneumonia in postoperative and bed-ridden patients is beyond the scope of this paper.

It is of the utmost importance to remember that high concentrations of oxygen favor combustion, and at times form explosive mixtures especially when in contact with oil. Therefore, a warning should be hung on the door of any room in which oxygen is being used that all flames, electric sparks, and highly inflammable materials should be kept away. It is not uncommon for well meaning but poorly informed members

of the family to supply cigarettes and matches even to a very sick patient. The family should be specifically warned of the dangerous fire hazard involved in such procedure. All valves should be clearly labeled, "Use no oil," and lubricating oil should not be used in any part of the oxygen equipment under any circumstances, since high concentrations of oxygen coming in contact with lubricating oil have caused serious explosions.

The simplest and most practical method of oxygen administration to a pneumonia patient at home is by use of a *nasal catheter* or *metal cannula*. The use of the soft rubber urethral catheter for this purpose was originally introduced by Adrian Stokes who improvised this method of treatment under the exigencies of treating pulmonary edema following gas poisoning on a World War battle field.⁴⁰ The metal cannula was introduced in 1925⁴¹ and has gradually evolved into its present form.^{33,42} If properly used, either of these methods will prove satisfactory in most cases of pneumonia. The disadvantages of these methods are the slight discomfort attending their use, and the limited concentration of oxygen available. A single catheter in the conventional position (q.v.) will supply an approximate alveolar oxygen concentration of thirty-five per cent at a flow rate of five liters per minute.^{29,43,44} Approximate concentrations of about fifty per cent can be attained at a flow rate of ten to twelve liters per minute, which is the highest flow that generally can be tolerated.⁴⁵ The metal cannula will supply concentrations slightly below these levels at the same flow rates.^{42,46} The use of two catheters simultaneously in the conventional position will provide a very little increase in concentration,⁴² but because of the constant irritation of both nares this method is not as desirable. The equipment necessary for this method consists of a high pressure tank of oxygen, reducing valve, pressure rubber tubing, vaporizing bottle, and a catheter or metal cannula.

It is important at this point to state that there is *no* special "medical" oxygen. The ordinary industrial oxygen which can be obtained in an emergency, from a local garage or mill in large cylinders

of 220 cubic feet or 6 000 liters capacity is sufficiently pure and perfectly safe to use. Even though a reducing valve is required with the use of these tanks, they will still prove to be the cheapest oxygen supply for the average physician to use over a period of time. Low pressure tanks are not only a more expensive way of supplying oxygen, but they are also very difficult to regulate. There is a gradual drop in the rate of flow as such tanks are used, and they contain so little oxygen that frequent changes are necessary in order that continuous therapy may be carried out.

When the oxygen tank is brought into the sick room it should immediately be strapped firmly to the bed in an upright position in order to prevent accidents by overturning. Before the reducing valve is attached to the tank the tank valve must be opened for a brief instant "cracking the valve," in order to blow away any dust or dirt that may have accumulated in the oxygen outlet. If this is not done, the dirt will be blown into the reducing valve and may damage it.

The reducing valve brings the pressure of the oxygen released down to any desired point and indicates on one gauge the amount of oxygen remaining in the tank and on the other gauge the rate of oxygen flow. This last measurement which is of the utmost importance in oxygen therapy presents a few difficulties. In the usual reducing valve with a dial gauge (Bourdon type gauge) the pressure within a flexible tube with a small exit orifice is measured rather than the actual rate of flow. As the pressure within this tube increases the tube tends to straighten out actuating a mechanism which moves the needle on the dial. If an obstruction is present such as a plugged catheter or kinked rubber tubing the gauge will actually record a higher instead of a lower rate of flow since the obstruction will increase the pressure within the flexible tube. Furthermore, if the oxygen tank valve is opened when the reducing valve is also open the tube may be sprung and the dial markings will become inaccurate. If such a gauge (or a Pitot type gauge) is used it is wise to calibrate it at frequent intervals. This can be done easily with a basal metabolism spirometer.⁴¹ The bub-

bling of the oxygen through the vaporizing bottle will serve as an additional though crude method of checking oxygen flow. A complete obstruction in the line is evidenced if the bubbling ceases, but a partial obstruction can rarely be detected by this means.

A more satisfactory type of gauge is the two stage variable orifice type of flow gauge which actually measures the oxygen flow by the height to which a metal ball is suspended in a glass cone by the force exerted by the flow of oxygen. If an obstruction occurs in this system, the ball will drop to zero immediately, and an obstruction can easily be detected. This gauge must be corrected at extreme altitudes, and the back pressure of the column of fluid in the vaporizing bottle may tend to make the final reading inaccurate. However, if the gauge is calibrated at a given altitude, with a definite level of fluid in a given vaporizing bottle it will remain reasonably constant and require no further calibration.

Measuring the outflow of oxygen through holes in a tube immersed in water is too unreliable for use with catheter or cannula. Since the only measure of the amount of oxygen received by the patient with these methods of therapy is that indicated on the flow gauge and since it is impractical to do analyses of the inspired air on a patient in the home, it is important that the flow gauge be as accurate as possible. In using an oxygen tent however frequent analyses of the tent air are made so that an accurately calibrated flow gauge is not as important as it is when the nasal catheter or cannula is employed.

Since dry oxygen is very irritating to mucous membranes it is necessary to moisten the dry gas with water vapor. This can be done by putting a vaporizing bottle in series in the oxygen feed line. Any wide mouthed bottle of 500 to 1 000 c.c. capacity fitted with a two hole rubber stopper will be satisfactory. The glass inlet tube should reach within one-half inch of the bottom of the bottle while the glass outlet tube should be short, projecting only about one half inch below the under surface of the stopper. In order to secure adequate vaporization the water level should be

at least three inches above the tip of the inlet tube. Glass beads or copper screening immersed in the water around the inlet tube will help to break up the bubbles and provide a greater contact surface between the water and the oxygen. Although the water level should be as high as possible, it should not be so high that water enters the outlet tube when the oxygen is flowing. This is important. To prevent the water from bubbling over and running into the patient's respiratory tract, it may be found necessary to insert a trap in the line between the vaporizing bottle and catheter.

If the catheter method is used, size 10 or 12 French urethral will be found most satisfactory. It should have a few extra holes cut through the tip (perforating the tip with a hot wire is really a better method because it eliminates the irregular irritating edge which is usually left by the cutting scissors) in order to avoid obstruction of the outflow by mucus and to prevent the oxygen stream from causing irritation through being directed against one spot on the mucous membrane. The catheter should be lubricated with petrolatum and gently inserted with the oxygen flowing. The conventional location for the tip of the catheter is in the pharynx just at the level of the lower border of the uvula. This position gives good clinical results but there is at present no available information regarding the relative efficiency of the catheter method with the tip of the catheter in successive positions from the external nares to the oropharynx. Since the metal cannula gives but slightly lower readings than the single catheter, such an investigation might show that it would not be necessary to cause discomfort to the patient by keeping the tip of the catheter well down in the pharynx. The "oral insufflation method" with the tip of the catheter in the oropharynx^{48,49} is reported to give high concentrations of inspired oxygen, but this method is not as comfortable as the cannula method, and there is a definite danger of an acute dilatation of the stomach if the tip of the catheter drops down into the upper portion of the esophagus.

The catheter should be changed every eight hours or more frequently if indicated, with as little interruption of the

oxygen supply as possible. This is best done (especially in delirious patients⁵⁰), by introducing a clean patent catheter in the opposite nostril in the desired position, and with the oxygen still flowing, the used catheter is disconnected and the feed line attached to the new catheter. The used catheter is then removed, washed, boiled, and dried, ready for use at the next change. The alternate use of each nostril allows recovery of one side from irritation while the other is being used. Mineral oil should be instilled into the nose and swabbed onto the throat every few hours to help keep irritation at a minimum. This in distinction to the other use of oil indicated as dangerous, seems to be a perfectly safe procedure, probably because the mucous membrane readily conducts any accumulating heat away.

The *oxygen tent* is an excellent method of therapy in pneumonia when high concentrations are necessary. It is specifically indicated in those cases in the home where the catheter or cannula method cannot supply a concentration of oxygen adequate to relieve the existing symptoms, or where these methods are poorly tolerated by the patient. Concentrations of oxygen up to seventy or eighty per cent can easily be maintained in any well designed tent. Such a tent should be noiseless, have a capacity of at least eight cubic feet for an adult,²⁹ be provided with a cooling, dehumidifying apparatus, a canopy made with material impervious to oxygen⁵¹ which contains non-inflammable windows, a soda line chamber, and, preferably, a motor blower.

While the tent is usually more comfortable for the patient than either catheter or cannula, it is a more expensive and more complicated method of supplying oxygen for routine treatment in the home. In addition to the details regarding oxygen tanks and valves described above, there are a great many precautions that must be rigidly observed in order to achieve satisfactory results with the tent method.

The tent should be completely prepared for use outside of the sick room in order to spare the patient unnecessary disturbance. The tent should then be wheeled in and placed at the bedside. The oxygen should be turned on and

should flow at a rate of ten to fifteen liters per minute for a few minutes prior to and during the placing of the canopy over the patient. In order to operate efficiently it is necessary that the canopy and bed form an air tight compartment. This is best accomplished by placing a rubber sheet over the mattress to prevent the oxygen from diffusing through it,⁴⁴ and by carefully tucking in the skirt of the canopy to prevent any leaks between the canopy and the bed. In order to maintain such a condition, openings used for attending to the patient should be small and opened for as short a time as possible. Furthermore, the rate of oxygen inflow should be increased for a few minutes before and after opening of the tent canopy as well as when the oxygen tank is changed or when the ice chamber is refilled.*

In such an air tight compartment the only oxygen available to the patient is that coming into the tent from the oxygen tank. It is therefore, the physician's responsibility in placing a patient in such a tent to make sure that a safe concentration of oxygen is maintained. Wide variations of oxygen concentrations even in the same tent have been observed.⁴² It is perfectly possible that due to errors in operation or mechanical flaws the oxygen concentration might drop to dangerously low levels. It is essential therefore that an analysis of the tent air be performed at frequent intervals. This analysis can be performed by means of a simple analyzer.⁴³ When oxygen tents are leased from rental companies, it is important to specify that facilities for such analysis also be supplied. At present there is no tent which "is so perfected that analysis is unnecessary." For a short time after the canopy is placed over the patient frequent test analyses should be made in order to determine the rate of flow which will supply the concentration necessary to relieve the patient's symptoms. The physician should then specifically prescribe the concentration of oxygen to be maintained. The

concentration should be checked by analyses of tent air every three to four hours throughout the day and night. Usually thirty-five to sixty per cent of oxygen is satisfactory but in any individual case it should be high enough to relieve the indications which prompted the therapy.

Since continued exposure to concentrations of oxygen above sixty per cent (at sea level, partial pressure* of 450 mm. mercury) has been shown to be harmful to animals⁴⁴⁻⁴⁶ Patients who require high concentrations should be exposed to them for intervals not exceeding about eight hours per day.⁴⁷ During the rest of the time the level should be kept below sixty per cent. The evidence of the innocuousness of high concentrations of oxygen to humans⁴⁸ is far from complete, while the animal evidence cited above is so extensive and convincing that in the present state of our knowledge it is probably wiser to err on the side of a lower rather than a higher concentration of oxygen.

The oxygen tent is also an air conditioning unit which can give great comfort to the patient if properly handled. An efficient oxygen tent should not only supply oxygen to the patient but should serve to regulate the temperature and humidity, and keep the carbon dioxide concentration below 1.5 to two per cent.⁴⁹⁻⁵²

The usual temperature range in the tent should be in the region of fifty-eight to sixty-eight° F.⁵³ but in any case must be adjusted to the comfort of the patient and the season of the year. If the temperature within the tent is too high the humidity will build up to dangerous levels and heat stroke may ensue. The evaporation of perspiration plus the moisture exhaled are responsible in the main for the high humidity level. On the other hand if the temperature within the tent is kept too low the cold air may cause severe protracted paro-

*It has been clear for many years⁵⁴ that the physiological as well as chemical effects obtained from a gas depend on the partial pressure of the gas and not on the percentage of gas present in a mixture of other gases. It is, therefore, necessary to appreciate that corrections of the percentages should be made depending on the altitude at which the sample for analysis is taken.⁵⁵

*In the November 1938 *American Journal of Nursing* appears a paper by M. J. Hawthorne et al. containing measurements of oxygen concentration made after opening the tent, according to various techniques. The most efficient technique is carefully explained in that paper.

xyms of coughing. It has been observed that individuals seem to tolerate higher ranges of temperature in the summer and lower ranges in the winter⁶³

The ice chamber of the tent should be filled with pieces of ice about the size of a baseball. During very hot weather it may be necessary to use a salt and ice mixture in order to lower the temperature to a satisfactory level. Every tent should have a by-pass around the ice chamber to allow uncooled oxygen to enter the tent if the temperature becomes too low. The ice not only lowers the temperature, but also dehumidifies the air by condensing the moisture in the same way that a cold windshield condenses the moisture in a heated closed automobile. In most tents with motor blowers the humidity will automatically be adjusted below dangerous or uncomfortable levels if the temperature is properly regulated. A thermometer should be kept in the tent constantly, and the temperature recorded every two hours on the clinical chart.

Most tents are equipped with a compartment containing a removable basket filled with soda lime to absorb carbon dioxide, although it is possible by the use of high rates of flow of oxygen to keep the carbon dioxide concentration below 1.5 per cent without soda lime.⁶⁷ Since this requires a flow of at least eight to ten liters of oxygen per minute, however, the additional oxygen necessary may be more expensive than the cost of the soda lime. With continuous use of the tent a gallon of dry soda lime will last from four to five days⁶² depending on the rate of flow of oxygen and the amount of carbon dioxide produced by the patient.

Tents with motor blowers are much more effective in reducing the humidity within the tent than those depending on a stream of oxygen and convection currents. They present the disadvantage of requiring provision for electric current, and occasionally treatment may be interrupted by motor failure. It is also important that repair parts be within reach in the event of an emergency in order that the interruption of therapy may be as brief as possible.

The *open top tent and oxygen box*^{65,66} have been found of value in the treatment of infants and young children where

the arms of the patient remain inside the tent. In adults the isolation of the head from the rest of the body by the neck band causes many patients discomfort, at times extreme, because they cannot reach their mouth or head. Furthermore, nursing procedures in these tents must be done from above, and in the case of an adult propped up in bed it may be very difficult for the nurse to reach into the tent. It is of the utmost importance that open top tents be protected from air currents, since these may flow in and out of the top of the tent and make it impossible to maintain a therapeutic concentration of oxygen.

It is evident from the above that it is dangerous to operate a tent unless an intelligent full time nurse (or other individual trained in the use of oxygen tents and analysers) is available. The nurse should be instructed so that she is thoroughly familiar with the operation of the tent and knows how to use the oxygen analyser. If it is impossible to obtain such services, the catheter or cannula method should be used, even though an oxygen tent might be preferred for other reasons.

Following every use the tent canopy should be cleaned by thorough scrubbing with soap and water, both inside and outside, and then should be dipped for five minutes in a 1:10,000 solution of bichloride of mercury, and rinsed with water. Exposure of the tent to sunlight and fresh air for a few hours following the above treatment may be of some additional value.

The *tube and funnel* method of oxygen administration has enjoyed great popularity, due to its simplicity. However, actual measurements of the inspired air of individuals receiving oxygen by this method show it to be completely worthless in pneumonia.²⁸ It should not be used.

The reports on the *subcutaneous* use of oxygen have been very sporadic^{67,68} and no well controlled series of cases has ever been published. Furthermore, the small amount absorbed could hardly be expected to be of any therapeutic value. Therefore, this method should not be seriously considered in supplying oxygen to a pneumonia patient. Although the *percutaneous* method of ad-

ministering oxygen will aid in the relief of pain in peripheral vascular diseases,⁶⁹ there is no evidence that this method is of the slightest benefit in the treatment of pneumonia

The Haldane oxygen face mask⁷⁰ or modifications of it, as well as the box mask⁷¹ are effective only in those conditions which do not demand continuous therapy. Coughing, expectorating, drinking, and eating all cause interruption in the supply of oxygen by this method. They are not therefore, satisfactory in pneumonia where the supply of oxygen must be continuous.

While the oxygen chamber probably represents the ideal method of oxygen administration it is practical only for the treatment of pneumonia cases in hospitals, and further discussion of its merits is beyond the scope of this paper.

Summary

In pneumonia, oxygen therapy is indicated for the symptomatic treatment of cyanosis, sustained rapid pulse, sustained rapid respiration, and restlessness or delirium.

The nasal catheter or metal cannula is a satisfactory method for the home treatment of pneumonia if the proper technique is observed.

The oxygen tent should be used when specifically indicated, full time nursing service, and facilities for frequent tent air analyses are indispensable. This method introduces a definite danger to life if oxygen concentration, temperature and humidity are not properly determined and controlled.

Other methods of oxygen therapy are unsatisfactory in the home treatment of pneumonia.

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EDITORIALS

Public Grows Wiser

Whatever the November elections indicate in other respects, they prove that the American public realizes the necessity for unrestricted medical research and thorough educational preparation for medical practice. Colorado voters gave a resounding "No" to a proposal initiated by chiropractors to repeal the basic science act and emasculate other essential provisions of the medical practice laws. In California an initiative bill to cripple animal experimentation was also snowed under. In Oklahoma and Ohio cult measures which would have lowered the quality of medical service did not even get on the ballot.

This decisive rejection of proposals to debase the standards of medical care shows that the American public can be relied upon to uphold high grade, scientific medicine once the issue is clearly drawn. The medical profession, of course, took the lead in the fight against destructive legislation in the four states in question, but the popular response was immediate and decisive.

This adds weight to the suggestion, often made in these columns, that the profession appeal to the public on the socio-economic issues which threaten to disrupt the present system of medical care. Many intelligent laymen mistakenly view the controversy over compulsory sickness in-

surance as a struggle between low-cost medical care and the selfish interests of a small group in organized medicine. They do not understand the grounds for professional antagonism to some forms of group (contract) practice. If the true issues were made clear and the people realized the actual basis of medical opposition to lay control, their fundamental good sense would lend valuable support to the profession's stand.

From the physician's viewpoint, the decisiveness with which the public rallied to the defense of medical standards last month is an added incentive to proceed with the elevation of those standards wherever possible. As the profession sees it, the predominant medical issue of the day is not so much to increase the quantity as to improve the quality of medical care for all.

Blow to Chiropractic

In Brooklyn Magistrate Sylvester Sabatino made a ruling on chiropractic which should expedite the elimination of this form of illegal medical practice from New York State. The defendant, Frederick C. Zinke, fought for acquittal on the basis of a routine statement to patients that he did not practice medicine, diagnose or prescribe drugs. In his decision to

hold Zinke for Special Sessions, Judge Sabbatino brushed aside this subterfuge with a reasoned statement going to the core of the situation

The Court held that in spite of the defendant's disclaimers there was a 'holding out' to practice medicine in the signs displayed by him in the whole set-up of his office and in the acts performed there. "And the fact that chiropractors abstain from the use of words like 'diagnosis', 'treatment' or 'disease' is immaterial. What they hold themselves out to do and what they do is to treat disease, and the substitution of words like 'analysis', 'palpation' and 'adjustment' does not change the nature of their act. To this Court the negation is but a false pretense for defendant proceeded to perform the very acts which he pretended he did not perform.'

A momentous aspect of Judge Sabbatino's decision is his interpretation of the display of signs bearing the legend "chiropractor" or "Doctor of Chiropractic." "These signs and certificates are in themselves presumptive evidence of a holding out (to practice medicine) — the titles 'doctor' and 'chiropractor' carry with them definite implications that the possessor of these titles is able to treat bodily conditions'

This is one of the most important rulings handed down on the subject of chiropractic. It makes it possible for the state to proceed against every chiropractor who so lists himself in the telephone book or who displays a chiropractic sign. It materially lessens the difficulty and expense of procuring evidence and makes the situation of all kinds of unlicensed sectarian practitioners less tenable.

The medical practice laws, in spite of occasional charges to the contrary, are designed primarily to protect the lay public against unqualified healers. Vigorous prosecution of illegal practitioners such as the state has enjoyed under Assistant Attorney General Sol Ullman is materially aided by clear thinking unequivocal judicial decisions like that handed down by Judge Sabbatino in the Zinke case

The Spirit of Research

There is no graduate in medicine in whom there is not a deeply rooted desire to bring forth some new achievement for the benefit of mankind. The years of close association which are spent with medical progress in the process of development are a stimulus which none of us can resist. Many of us, in the failure of our endeavors to produce something useful, are apt to become discouraged because, in our quest for the practical, we have completely forgotten the true spirit of research that was responsible for the urge to work.

What is this spirit of research? In an address delivered at the opening of the Squibb Institute for Medical Research 'The Usefulness of Useless Knowledge' Dr. Abraham Flexner said "The answer is easy: the fearless and unhampered search for truth, the unlimited cultivation of the natural curiosity of human beings within the field of science. It is almost certain that efforts aiming at the immediately practical will fail unless they are based upon a long succession of experiments and endeavors that have no such practical use in mind. Unquestionably disinterested scientists have accumulated knowledge which can and should be brought together for the purpose of relieving suffering as happened for example, in the case of insulin. Let us therefore continue our quest for the useless as well as the useful confident that in the long run both will inure to the benefit of humanity."

It is on this course of exploration and adventure that research should be undertaken. Here lie no disappointments or failures — only the exhilaration of the everlasting pursuit for the truth.

Reviving Interest in Chemotherapy

The outstanding contributions which, in recent years, have been made in vitamin and organotherapy have tended to overshadow equally important achievements in chemotherapy. In fact there was

apparent a certain amount of misgiving in some quarters as to the value of pharmacological studies applied clinically, and were it not for the discovery of sulfanilamide, there might well have occurred a stagnation of interest in the investigation of the biologic action and therapeutic effects of chemicals

The practical usefulness of such study is sharply portrayed by Soma Weiss¹ He has correlated the recent advances made in the investigations of alkaloids of the morphine group By alteration of the chemical structure of the molecules of these alkaloids, drugs have been obtained which exhibit more specific therapeutic reactions For example *dicodid* seems to be a far more effective sedative and respiratory depressant than morphine, but its analgesic effect is less There is much less tendency to addiction following prolonged use of dicodid Then again, certain phases of the use of morphine in daily practice which are still not sufficiently understood are in the process of clarification Its use in cardiac disease and in disorders of the gastrointestinal tract has been a moot problem which in the light of recent investigations has been established on a more firm footing

Principally, however, the ultimate isolation of a morphine derivative which will not be associated with a tendency to addiction remains to be achieved The paper by Weiss is a timely one, not alone from the subject matter which it presents, but from the stimulus it will add to the rekindling of interest in the usefulness of drugs

CURRENT COMMENT

"THE BUSINESS MAN IS NOT the only one with a government problem on his hands The doctor also has that particular headache and has not yet learned how to cure it"
—From *Fortune* for November

" WARS ARE NOT WON BY ANYBODY Always there is loss to humanity In this particular controversy the loss is to the sick

and suffering, the ones whom we are sworn to protect Arguments can not be won Principles, however, can be established There are large bodies in the so-called welfare and humanitarian groups who have few if any differences with us Those that have differences are usually doing what they think is right If we disagree with them it is our duty as physicians to teach and to lead "
—From an address by Dr William A Groat, President of the Medical Society of the State of New York

" AMERICAN MEDICINE NEEDS to be sold to the American people Our light is under a bushel A properly directed publicity campaign can mold the public opinion to demand the continuance of our excellent system of medical practice American medicine has made great progress in the past fifty years It has reduced infant and maternal mortality, decreased the ravages of the infectious diseases, increased the life expectancy more than a decade, discovered new diseases and perfected their control It has cleaned its own house by eliminating inadequate medical schools, by maintaining high ethical standards, and by gradually raising the standards of recognized specialties It has fostered public health legislation and industrial health legislation It has met and continues to meet the varied problems of a changing economic order adequately and with dignity "
—An opinion expressed recently in the Sedgwick County (Kansas) Medical Society *Bulletin*

"THE COMMUNITY IS CONCERNED with the maintenance of professional standards which will insure not only competency in individual practitioners but protection against those who would prey upon a public peculiarly susceptible to imposition through alluring promises of physical relief, and the community is concerned in providing safeguards not only against deception, but against practices which would tend to demoralize the profession by forcing its members into an unseemly rivalry which would enlarge the opportunities of the least scrupulous"—We are in accord with Chief Justice Charles Evans Hughes' statements on "Professional Standards" which we found reprinted in the November issue of the *Medical News* of Rock Island County

" WHETHER YOU LIKE IT OR NOT the distribution of your services, your security, your part in the social fabric is all too rapidly becoming involved in the gen-

¹ Weiss, S *Am J Med Sc*, 196 743, 1938

ANNOUNCEMENT

To Subscribers, Advertisers, and Whom It May Concern

On and after January 1, 1939 the NEW YORK STATE JOURNAL OF MEDICINE will be published exclusively by the Medical Society of the State of New York. A certain contract between Thomas R. Gardiner and Medical Society of the State of New York, providing for the publication of the NEW YORK STATE JOURNAL OF MEDICINE by said Thomas R. Gardiner and/or Professional Journals, Inc., will terminate on December 31 1938 and has not been renewed.

eral policies of government. Organized medicine stands for your welfare as well as the welfare of the public. You may have been a parasite formerly living off the bounty of the fruits that medical science has garnered for humanity, but if you do not become active in your organization and active in government affairs generally, the whole of society, as well as you yourself, will suffer. "—From an address by the President of the Michigan State Medical Society, Dr Henry A. Luce, to be found in the Michigan State Journal for October

"FOR THIS IS THE LIBERTY of wisdom that being obliged to none it's under its own command and jurisdiction, in her Commonwealth it's permitted to abrogate, dero-

gate, and search without prejudice to any, which liberty if we take away we shall always continue in the cradle of arts nor will there be anything from whence we hope for their increase, or for anything better than has been published.

The treasures of Nature are immense, and her wisdom inexplicable so that those things which daily come abroad do prepare a way to search out those things which follow, for truth is drown'd in a deeper well than that it should be drawn out from thence in a few ages'—The foregoing is not exactly current having been published in 1673, but nevertheless we believe it well worth reprinting here. It is from the preface by Zachary Wood, Physician at Rotterdam, to Dr William Harvey's 'The Anatomical Exercises Concerning the Motion of the Heart and Blood'

H E L P

The Physicians Home was established in 1918 to serve worthy distressed members of the profession without discrimination as to race or creed

Here the aged or disabled doctor or widow is offered comfort and companionship as a guest of the profession. The demands today upon the Home are many. The present funds are inadequate.

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Public Health News

Public Health Notes

J ROSSLYN EARP, L R C P, Dr P H
New York State Department of Health

Do We Save Life?

An editorial writer in the *New York Times* (November 26) calculates that as compared with the year 1900 we shall save this year in the United States 200,000 people from death by tuberculosis. We have made some gain against "influenza and pneumonia," but we have lost in the struggle against heart disease and cancer. The writer then lumps all these causes together and arrives at a net gain of 60,000 lives. This "gain" strikes me as a mere artifact. Surely if all causes of death are taken together our net "gain" will amount to zero, unless, of course, somebody discovers the elixir of life? There may be a temporary "gain" in any given year which will be offset by a temporary "loss" in some other year or vice versa until the age composition of our population becomes stable. My point is obvious. If we save a man from death by tuberculosis we save him for death by something else. We may postpone death but what we really save is health. That is eminently worth saving whether life be prolonged or no. Indeed the mere prolongation of life without the conservation of health may well become a disaster, social no less than personal.

Partly because individual lives are prolonged, but still more because families are limited, i.e., fewer babies are born, the proportion of young and active members of the population is rapidly declining. It is estimated¹ that by 1975 the population twenty to forty-four years of age will have

increased by only six per cent but the population forty-five to sixty-four years of age will have increased by sixty-nine per cent. Unless the generation now in high schools and colleges can be delivered from the invalidisms of middle age they will become an intolerable burden upon their offspring.

It is this ineluctable trend that is responsible for the new outlook in public health. Those of us who were trained ten years or more ago all learned to believe that our responsibility was to control the environment and to set up barriers against the spread of communicable disease. Curative medicine was something else in which we need not, with which we must not, interfere. But while we have become aware of the social implications of sickness our colleagues in general practice have become more and more aware of the personal significance of preventive medicine. There are thus many new measures, as for example, popular health education, in which we are commonly interested. I am not pessimistic as to the results. All the disciples of Hippocrates are devoted to the same ideal and it is not beyond human wisdom to determine in a spirit of goodwill which part of the newer tasks belong in the field of private practice and which in that of public health administration.

Reference

¹ The Problem of a Changing Population Report
National Resources Committee, page 8, May 1938

The Newly Rare Diseases

It is, perhaps, inevitable that as the acute communicable diseases become less common, those which do occur will be more frequently missed. This situation presents a challenge to the private practitioner to be ever upon the alert. Typhoid fever is one of those now relatively rare diseases which yet cannot be forgotten. In recent reports from two different district health officers I read of two cases of dysentery and one of typhoid fever suffering needless appen-

dectomies. The latter was admitted to the hospital in a comatose condition and died after the operation. Cases of typhoid fever are still mistakenly diagnosed as pneumonia. A mistake of this sort recently resulted in nearly one month's delay before the district health department was apprised of the existence of a family outbreak. The more we can continue to advise each other the less frequently such errors are likely to occur.

THE WOMAN'S AUXILIARY

To the Medical Society of the State of New York

SECOND DISTRICT BRANCH The Woman's Auxiliaries to the Medical Societies of Kings Nassau Queens and Suffolk held a luncheon and bridge in conjunction with the Annual Meeting of the Second District Branch of the Medical Society of the State of New York in the Garden City Hotel, Garden City on November 16. Our President, Mrs. Daniel Swan greeted one hundred twenty five auxiliary members who attended the meeting with their husbands. During the luncheon Dr William Groat President of the Medical Society of the State of New York, welcomed the doctors and members of the auxiliaries and expressed his pleasure at seeing so many present. Dr Terry Townsend President Elect of the State Medical Society was introduced to the guests.

After the luncheon while the doctors attended lectures and scientific sessions the auxiliary members enjoyed a delightful afternoon of bridge arranged by Mrs. James M Dobbins and a committee of members from the four county auxiliaries.

ROCKLAND COUNTY Mrs J C Dingman was elected President of the Woman's Auxiliary to the Medical Society of the County of Rockland at the meeting held in

the Nvack Y.M.C.A. on November 18. Officers and chairmen of committees gave their annual reports. In the work of the year were two outstanding programs on Health Education for the public—a lecture on syphilis given by Dr Alexander Selman and a series of three lectures on cancer sponsored by the Medical Society of the County of Rockland with the cooperation of the auxiliary and given by Dr John M Swan.

Plans and programs for the following year will be discussed at the first meeting on January 17. Mrs Dingman will preside.

* * *

WILL EACH COUNTY AUXILIARY PRESIDENT please send name and address of her Chairman of Press and Publicity to Mrs Thomas M d'Angelo 33-46 87th Street Jackson Heights, N Y

* * *

Mrs DANIEL SWAN and the members of her Executive Board extend to County Auxiliaries and to the Medical Society of the State of New York best wishes for a very pleasant holiday season.

Book Review

Surgical Diseases of the Mouth and Jaws. By Earl Calvin Padgett, M.D. Octavo of 807 pages illustrated. Philadelphia W B Saunders Company 1938 Cloth \$10.00

This work is outstanding in detailing an absolutely complete study of almost all possible conditions and procedures to be found about the mouth and jaws. It would be a great asset to any specialist or practitioner doing surgery about the head and neck. Being written by a physician the medico-surgical principals are stressed to good advantage. Many of the less frequently found complications are detailed. In compiling such a vast amount of material in one volume the print is necessarily smaller than usual, but is clear and easy to read, and each page contains almost twice as much material due also to small margins. Each subject is treated completely, but only the exact and necessary material is included with no space filling words.

In stressing anatomy and pathology at considerable length we believe a valuable note is sounded. For one may see a thousand cases with empirical vision, and still not know the course to follow unless a threshold is laid in the basic sciences of physiology histology anatomy and pathology. The chapter on complications of wounds is splendid and if this fundamental knowledge is acquired one is better equipped to assist the patient make a comfortable recovery.

Radiation has become a routine method of treatment and the section on this subject gives a groundwork outline for consideration and study.

We wish to compliment Dr Padgett for the enormous amount of work and research he has put into this volume and hope the knowledge that he has done something well will repay him.

GEORGE H DOW

Medical News

Bronx County

THE BRONX COUNTY MEDICAL SOCIETY will celebrate its twenty-fifth anniversary on January 7 with a dinner dance at the Waldorf-Astoria Hotel at which the guest of honor will be Dr Nathan B Van Etten, its first President. His many friends from all parts of the State and Country will undoubtedly attend this function and unite with the Bronx County Medical Society in honoring Dr Van Etten, former President of the New York State Medical Society and former speaker of the House of Delegates of the American Medical Association.

THE TOPIC OF THE North Bronx Medical Society on November 3 was abdominal pain, with these principal speakers (a) Pediatric Aspects, Dr Joseph Golomb (Discussion by Dr William Hinz), (b) Medical Aspects, Dr Samuel Weiskopf (Discussion by Dr Burrill B Crohn), (c) Surgical Aspects, Dr Louis Sheinman (Discussion by Dr William Klein), (d) Urologic Aspects, Dr Isidor Palais (Discussion by Dr Martin J Loeb), (e) General Discussion

Erie County

THE MEDICAL SOCIETY OF THE County of Erie listened to an address at its meeting on October 17 by Mr Arthur J Adler, Chairman of the Finance Committee of the Erie County Board of Supervisors, on "Public Welfare."

DR TRACY MALLORY, of Boston, read a paper on "Pathology of Bronchial Asthma" before the Section of Pathology of the Buffalo Academy of Medicine on October 26

Kings County

COOPERATION IN THE FORMATION of a proposed Co-ordinating Economic Council of Brooklyn to provide free medical care by private physicians to patients unable to pay for such treatment was voted by the Williamsburg Medical Society on October 10

A committee was appointed to work with the South Brooklyn Medical Society, proponent of the plan, and other interested agencies, to bring such a council into existence. Dr Nathan Slutsky heads the committee, which includes Dr Samuel Millman, secretary of the group.

Dr Tasker Howard, professor of medicine at the Long Island College of Medicine, spoke on his experiences with routine differential blood counts. Dr Henry Joachim,

director of medicine at Beth Moses Hospital, and Dr Simon R. Blatteis, director of medicine at the Jewish Hospital, also spoke. Dr Harry Mandelbaum presided.

Monroe County

DR FOSTER KENNEDY, of the Cornell University Medical School, read a paper on "The Organic Background of Mind" before the Medical Society of the County of Monroe on Monday afternoon, October 10. At the evening session Dr Frederic E Elliott, Secretary-Treasurer of the Associated Medical Service of New York, spoke on "Medical Expense Indemnity Insurance," and the report of a special committee favoring such insurance was approved and referred to the governing board for further action.

New York County

THE COMMISSION FOR STUDY OF CRIPPLED CHILDREN, recently appointed by Mayor LaGuardia, is preparing to make a complete register of every crippled child in the City of New York. Physicians will be called upon to cooperate.

A special form (Form 60) will be furnished by the Society or the Commission, located at 303 Ninth Ave., on which physicians will be asked to report the name of every crippled child with whom they come in contact, and to record the diagnosis of the crippling condition and the part of the body affected.

It is hoped that through such a study, every crippled child will be assured of medical and orthopedic care, by placing responsibility on the parents.

DR JOHN A HARRIS, well known as a crusader for street safety in New York City, died on October 11, aged sixty-three.

Niagara County

THE PROGRAM FOR THE meeting of the Medical Society of the County of Niagara on October 11 in Lockport was featured by a symposium on tuberculosis.

The speakers and their subjects follow: Dr Clyde W George, "Diagnosis in General Practice", Dr Nelson W Strohm, "The Operation of a Diagnostic Clinic", Dr Harry N Kenwell, "The Surgical Treatment of Tuberculosis", Dr Arthur N Aitken, "Rehabilitation of Tuberculosis Patients."

Oneida County

THE ONEIDA COUNTY Medical Society voted its endorsement of the proposal to have the state establish a cancer clinic in Utica or elsewhere in Oneida County at a meeting on October 11.

The society met at Marcy State Hospital for a program on mental diseases presented by Dr William W Wright and his medical staff. Discussions were illustrated by patients at the institution.

THE UTICA MEDICAL CLUB has adopted a resolution declaring the recent traffic and speeding privileges granted to physicians "unnecessary," as "the demand for excessive speed is so infrequent as to require no special consideration."

Onondaga County

THE A.M.A. MEDICAL SURVEY is on in Onondaga County. Dr O W H Mitchell, chairman of the Medical Survey Committee of the State Society and president of the Onondaga County Medical Society, has appointed an able survey committee with Dr Earle E. Mack as chairman.

THE MEDICAL EDUCATION COMMITTEE of Onondaga County Medical Society is arranging courses in medical instruction similar to the three courses arranged so successfully last spring. Any course of interest for which there is sufficient demand will be arranged.

THE INTEREST IN THE Obstetrical Society in Syracuse hospitals is on the rapid rise. This is a new organization and promises to have considerable influence in lowering maternal death rates.

THE MEDICAL SECRETARIES SOCIETY, formed last spring, has established a clearing house for the physicians of Onondaga County needing a new secretary. The Society has undertaken this task with the idea of securing competent secretaries for those physicians requesting this service.

Ontario County

DR. G W HAWK of the Guthrie Clinic Robert Packer Hospital, Sayre, Pa. was the guest speaker at the meeting of the Geneva Academy of Medicine on October 20 at the Geneva Country Club. Dr Hawk's subject was "The Management of a Few Acute Abdominal Emergencies."

DR. LEON E. SUTTON discussed Skin Grafting in the Treatment of Burns on October 13, at a monthly meeting of the Canandaigua Medical Society at Wenna. Dr F C. McClellan was host to sixteen.

Orange County

STATE MEDICAL SOCIETY officers spoke at the dinner meeting of the Orange County Medical Society at Hotel Thayer, West Point, on October 11.

Greetings from the State Society were extended by Dr T M Townsend president-elect, Dr James Lawrence executive officer and Dr Peter Irving secretary and general manager.

"I am very optimistic about the status of the profession. All the foundations upon which the profession has been built will not be put aside by any political organization," said Dr Townsend.

He added that he is awfully optimistic that something is going to happen and that when it does it will not be to our detriment."

Dr Irving also spoke in optimistic tones. He declared that the recent special meeting of the American Medical Association in Chicago has now filled the gap in our program, which he said favors (1) Payment by community for care given indigents (2) Use of existing beds before building new hospitals even if necessary the community to pay for indigents put there.

Queens County

THE PROGRAM OF THE Medical Society of the County of Queens on October 25 included 'Syphilis in Pregnancy' by Alfred C Beck M.D. Professor of Obstetrics and Gynecology at the Long Island College of Medicine and a Report of the Activities of the Maternal Welfare Committee by Edward A Flemming M.D. Chairman.

CONTRARY TO POPULAR OPINION jitter-bugs do think as they gallop through their terpsichorean endeavors. For dancing according to Dr Foster Kennedy chief neurologist at Bellevue Hospital is the marriage of mind and body and not—as many believe—what happens when the mind leaves the body.

Dr Kennedy made this assertion on September 24 before a meeting of the Queens County Medical Society.

Did you ever think why we dance and why we like it?" Dr Kennedy asked. "Anthropologists tell us dancing is a form of adoration and worship. Psychologists, those gentlemen on the outskirts of Vienna call it a form of sexual symbolism or, in other words sex on the half shell."

"Physiologically, dancing is a fusion of the hearing and balancing nerves. It is not a matter of the mind disembodied. It is mind into body."

Hospital News

Bellevue's Treatment for Alcoholic Deliria

A METHOD OF TREATING VICTIMS of alcoholic deliria and other "excited and disturbed mental patients" by giving them common table salt and orange juice was described in a report recently by Dr Karl M Bowman, director of the division of psychiatry at Bellevue Hospital.

The method has been in use at Bellevue since March 1937, Dr Bowman said in releasing figures which showed that the treatment reduced materially the death rate of patients suffering from alcoholic deliria. For six months before use of the new treatment, Dr Bowman explained, he and Dr Sylvan Keiser, also of the psychiatric division at Bellevue, noted "ninety-two cases of alcoholic deliria, with sixteen deaths due to alcoholism, a mortality rate of 17.3 per cent."

"During the following seven months, however," according to the report, "all alcoholic cases in the disturbed ward were treated with salt capsules and orange juice. In thirty-seven cases of delirium there were three deaths due to alcoholism. This gives us a percentage of 8.1 deaths in contrast to the previous 17.3."

Also Helpful in Other Cases

Dr Bowman said use of the treatment also brought important results in other psychotic cases, such as schizophrenia,

manic depressive psychosis and general paresis.

In reporting on the research done by himself and Dr Keiser, Dr Bowman said:

"It is our belief that certain conditions are common to all markedly disturbed patients, regardless of the type of mental illness. We think that much of the patients' disturbed behavior results from a disturbance in the water metabolism, that there is dehydration in all of these patients and that fever, when not based on an obvious physical disease, is due to dehydration."

Among victims of alcoholic deliria treated with salt and orange juice, Dr Bowman said, were some whose temperature reached 106°. The death rate of patients, other than alcoholic, who were treated with the new method was also reduced markedly, he said.

In treating patients, according to the report, the hospital gives them forced fluids, mainly orange juice, and the salt capsules. Two capsules of one gram each are given every four hours for the first day.

The report was entitled "The Use of Sodium Chloride and Hypertonic Intravenous Saline in the Treatment of Disturbed Patients."

The psychiatrists said that before starting the new treatment they had observed that heat-stroke cases among miners and steel workers were treated with salt, and that salt also was used in treating cramps.

Improvements

THE NEW YORK CITY Department of Hospitals has asked for \$47,011,737 for new projects for next year. The largest of the requests was for \$6,500,000 for the proposed Chronic Hospital on Welfare Island, which will be planned to provide 1,000 beds for chronic disease patients. Dr S S Goldwater, commissioner of the department, estimated it would take three years and eight months to complete the building. He asked for \$450,000 to start in 1939 and the balance to be appropriated during a six-year period.

Also included in Dr Goldwater's requests was \$5,150,000 for a new Queens General Hospital, \$4,900,000 for a new

Bronx General Hospital, \$2,695,000 for a Cancer Hospital on Welfare Island, \$5,400,000 for a new Brooklyn General Hospital, and \$4,900,000 for a tubercular and contagious disease hospital in the Bronx.

DEDICATION CEREMONIES starting November 6 for two new Catholic hospitals and a new wing of a third in the New York Archdiocese, at which Cardinal Hayes had planned to preside, mark a high spot in a hospital program started by the late Cardinal with the organization of New York Catholic Charities eighteen years ago.

Right Reverend Monsignor Michael J

Lavelle, P. A., rector of the Cathedral, presided at the dedication of Frances Schervier Hospital for the Aged, 227th Street and Independence Avenue, the Bronx, on November 6.

The Good Samaritan Hospital at Suffern and an important wing at St. Clare's Hospital, 415 West 51st St., Manhattan, complete the cycle.

These, with a new hospital at Warwick in Orange County for which the cornerstone was laid on September 22, represent a total outlay for hospital construction of more than \$1,800,000 and a bed capacity for 679 patients.

PRESSURE OF PROTESTS from the Veterans Administration and various veterans' organizations is believed responsible for the reinstatement of an allotment of \$2,045,000 for an addition to the U. S. Veterans Base Hospital, No. 81 Sedgwick and University Aves., New York City, as announced in Washington by the PWA.

The original appropriation, made several months ago, was cancelled by Public Works Administrator Ickes, along with a number of other veterans' hospital allotments on the ground that construction of the projects would be "unduly delayed."

When officials of the Veterans Administration protested to the White House and also advised the PWA that it was in a position to expedite the construction of the badly needed buildings, machinery was set in motion to restore the grant.

PLANS FOR A CAMPAIGN for the construction of a new county hospital, with facilities for the care of convalescent, infirm, chronic and incurable patients are announced by officials of the Nassau County Medical Society. Contending that such patients should not be using the beds of the county's overcrowded general hospitals, Dr. Louis H. Bauer, president of the society, urged that "immediate steps" be taken toward the establishment of a separate institution for their special care.

Dr. Bauer also urged that county funds be provided through the Department of Public Welfare for the home care of patients eligible for admission to charity wards but not requiring active treatment. Both demands were based on the fact that there are only about 600 hospital beds in the county and these are always filled. For the county's population there should be 1,350 beds, according to medical authorities.

THE NEW HOSPITAL FOR THE SICK and infirm inmates of the Warschauer Hayn Salomon Home for the Aged, 136 Second Avenue, adjacent to the home of 43 St. Mark's Place, New York City, was dedicated with the laying of the cornerstone of the new building on October 2.

The six-story structure will be completed at a total cost of \$145,000 and it is expected that the formal opening would be on November 13. The building will have 250 beds, fully equipped hospital facilities and a full staff of physicians and nurses.

Newsy Notes

A PROPOSAL WHICH IT IS believed would save Rochester Hospitals some \$132,700 a year has been made to the Community Chest by the Institute of Public Administration of New York. The plan includes centralization of ambulance and emergency services, hospital repair and maintenance, accounting personnel, purchasing and other activities. It might even include consolidating all nursing training schools into one institution, possibly under direction of the University of Rochester, according to a Rochester newspaper.

The report of the Institute was made only after a long and detailed study by Dr. Carl E. McCombs, who knows the Rochester situation intimately.

MENTAL HOSPITALS ACCOUNT for more than half the hospital beds in this country but forty-seven times as many patients are admitted to hospitals of other types—William D. Cutter, M.D. *Where Are Our Hospitals?*

FUNDS TO PROVIDE "IRON LUNGS" for three hospitals in Troy and one for the Hoosick Falls Health Center have been raised by the "Hot Stove League" of that city. There was no personal solicitation and no very large gifts but hundreds of small ones—pennies, nickels, dimes and quarters, coming from school children in all sections of the city and county.

Books

The Biology of Pneumococcus The Bacteriological, Biochemical, and Immunological Characters and Activities of Diplococcus Pneumoniae By Benjamin White, Ph D Octavo of 799 pages New York, The Commonwealth Fund, 1938 Cloth, \$4 50

At first sight a book of 799 pages dealing exclusively with the biology of the pneumococcus may appear to be a distressing symptom of specialization in medicine After having gone through the book the reader, however, realizes the justification for such a comprehensive presentation of the subject It so happens that many of the fundamental problems of modern bacteriology are dealt with in investigations on the pneumococcus Bacterial dissociation, the chemistry of bacterial antigens, the quantitative relations between antigen and antibody, many general problems of immunity and bacterial allergy, as well as the practical subject of serum treatment of pneumonia are dealt with in the book The large number of references (1593) attests to the thoroughness and completeness of the presentation The latter is clear, critical and interesting by virtue of a complete historical review accompanying each individual subject The book is much more than a presentation of the biology of the pneumococcus, it is a review of some of the most fascinating problems in bacteriology and immunology

ULRICH FRIEDEMANN

Hernia Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis, and the Operative and Injection Treatment By Leigh F Watson, M D Second edition Quarto of 591 pages, illustrated St Louis, The C V Mosby Company, 1938 Cloth, \$7 50

This second edition is a comprehensive treatise The purpose of the first edition was to present the entire subject of hernia, beginning with history and ending with prognosis As such, the second is commendable, comprehensive and complete The author is to be commended for the thoroughness with which he has covered each subtitle in his contents

The object of the second edition was to include in the volume the modern injection method for the treatment of reducible hernia The author elaborates all the details of this method of treatment, and pleads the cause of the newer method with an enthusiasm which may not be warranted by the experience of others The author states "The following states permit the employee a choice between the radical operation and the injection treatment for the cure of his

hernia" In the group of states enumerated he names New York In the April 1938 issue of the "Bulletin of the Medical Society of the County of Kings," page 78, appears the following statement "in view of the experimental nature of the injection method of treatment written authorization should be given for the injection treatment" Also under the date of February 25, 1938, the U S Employees' Compensation Commission issued an order to the effect that "no treatment of hernia by the injection method is authorized and that such treatment will not be paid for"

While this new method of treatment may be the pioneer work which will eventually be accepted, at the present time, the enthusiastic claims of the author are not borne out by experience in the literature

Despite this controversial point, the book is well worthwhile and should enjoy a deserved popularity ROBERT F BARBER

Textbook of Experimental Surgery By J Markowitz, M B Octavo of 527 pages, illustrated Baltimore, William Wood & Company, 1937 Cloth, \$7 00

This is a textbook of experimental operations on animals which have a direct counterpart in human surgery or else have a definite bearing on the acquisition of a finished technic in operations on man The basis of all this experimental work, according to the author, is a thorough knowledge of physiology, and it is upon this premise that his definitions and descriptions are founded The author develops his thesis in Chapter 1 "Introductory Remarks," which is a most scholarly and instructive presentation of his viewpoint It is hoped that all those who read the book will take ample time to consider this chapter carefully, both for the information to be found therein and for the inspiration of its classical description and discussion

Whether such a book must be a necessary part of the library of the practicing surgeon is questionable, inasmuch as its discussions are experimental rather than clinical If, however, one is convinced of the value of a physiological basis for surgery rather than a pathological or anatomical one, then even the surgeon will find much of interest and instruction in this book

JOSEPH RAPHAEL

Actinomycosis By Zachary Cope, M D Octavo of 248 pages, illustrated New York, Oxford University Press, 1938 Cloth

This book contains a wealth of knowledge It brings out the fact that actinomycosis

is not a rare disease in either man or cattle, and exists in every country

It contains fifty two excellent illustrations and eight color plates. The bibliography is most complete and so arranged that the general reader or the specialist may easily consult these references

The author has given a thorough and interesting history along with the biological characteristics and clinical pathology of actinomycosis

GEORGE H. HOPSON

A Textbook of the Practice of Medicine By Various Authors. Edited by Frederick W. Price M.D. Fifth edition. Octavo of 2038 pages illustrated. New York, Oxford University Press 1937. Cloth \$12.50.

The popularity of this Textbook of Medicine is evidenced by the demand for a fifth edition four years after the previous one. The first edition appeared in 1922. Recent progress of internal medicine can be gauged by the fact that this new edition contains rewritten articles on eleven diseases. Thirty-eight articles have been partly rewritten and a number of entirely new ones added. Newer methods of treatment and newer tests are included. One questions the advisability of including a chapter of one hundred pages on Diseases of the Skin. This is followed by chapters on Diseases of the Nervous System and Psychological Medicine consuming a little less than one fourth of the entire book. Why include in a textbook on internal medicine the specialties? These have their separate texts, their separate staffs their separate clinics. In a textbook of a former generation there was some justification for this custom. To devote 100 pages to a discussion of many diseases of the skin without one illustration detracts considerably from its value. This same comment applies to the chapters on Diseases of the Nervous System, one illustration is all the aid offered.

The book in general possesses the quality quite characteristic of English texts in that it is very readable. A 1937 edition of a Textbook of Medicine should contain more than the statement, in a discussion of the types of pneumococci, that "recent research is further subdividing group IV into bacteriologically different types".

The chapter on Electrocardiography is of unusual excellence and profusely illustrated. A most complete index of 150 pages makes reference to any phase of a subject a simple matter

The reviewer still condemns the prevailing tendency to make textbooks cumbersome and unwieldy—in this instance over 2000 pages. The student of medicine in this country should have at his elbow for ready reference another textbook preferably a foreign publication like this one, that he might benefit from the different point of view often presented.

SOLOMON R. BLATTEIS

Lectures on the Epidemiology and Control of Syphilis, Tuberculosis and Whooping Cough and Other Aspects of Infectious Disease. By Thorvald Madsen M.D. Octavo of 216 pages, illustrated. Baltimore: Williams & Wilkins Company 1937. Cloth \$3.00

Dr Madsen's book is composed of five lectures to each of which a chapter is devoted. In the first chapter the author describes the history of the development of the remarkably efficient public health control of syphilis in Denmark. Madsen shows clearly how well that country has succeeded in centralizing and correlating her public health service in the cause of venereal disease control. Serodiagnostics facilities are linked with the bureau of syphilitic registration. Treatment is free but obligatory for all syphilitic patients in an infectious stage. Penalties exist for the transmission of this venereal disease.

In the third chapter is reviewed the history of the development of the campaign for eradication of tuberculosis in Denmark. Particularly impressive are the several phases of this campaign in which Denmark has led the way. The importance and significance of the positive tuberculin reaction as an indication not only of infection but of later resistance to tuberculosis is stressed as is also the practical application of Calmette-Guérin vaccination. The fifth chapter contains a description of the modern status of the epidemiology, bacteriology, diagnosis and prophylaxis of whooping cough. As to the remaining two chapters one is devoted to the mechanism of bacterial infection and the other to the influence of seasons on infections. Both of these lectures contain much of interest.

It is unusual to review a book such as this in which the author has been one of the originators of the epoch making advances and additions to medical knowledge, his own part in which he so modestly describes

JOSEPH C. REGAN

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